# Converting from a Web-based Teaching Tool to a Teaching Modality for Social Anxiety

by

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Abstract

A Web-based teaching tool called WebCAPSI was modified and tested as an online treatment for social anxiety. Two-Hundred and Seventy-Seven Introductory Psychology students at the University of Manitoba participated in the study. Twenty-eight participants were excluded from the study, resulting in 121 participants in the control group and 128 in the treatment group used for the final analysis. All participants received written materials on treatment for social phobia via WebCAPSI; however, the material was broken down into discrete units with assigned study questions for participants in the treatment condition. Participants in the treatment condition answered specific questions within the WebCAPSI program whereas participants in the control condition answered questions unrelated to the content of the materials. Further, participants in the treatment condition were given the opportunity to serve as peer reviewers. Results of this study indicated significant differences in post-treatment anxiety scores on two anxiety measures between groups, higher treatment expectancy scores in the treatment group, and higher baseline anxiety scores predicting greater reduction in anxiety post-treatment. Peer review did not appear to have a significant effect on post-treatment anxiety scores. These results indicate that the WebCAPSI program may be a useful tool to present information on the treatment of social anxiety.

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# Converting from a Web-based Teaching Tool to a Teaching Modality for Social Anxiety

The National Comorbidity Study conducted in the early 1990s (with updated data available online at www.hcp.med.harvard.edu) indicated that anxiety disorders are the most common of all mental health disorders, with a life-time prevalence close to 32% (Antony & Stein, 2008; Wang et al., 2005). Life-time prevalence rates for anxiety disorders range from 10-29%, with as many as 1 in 5 people presenting to health care for service because of problems related at least in part due to anxiety (Antony & Stein, 2009).

Due to their high prevalence, anxiety disorders have a large social and economic impact. This causes difficulties in social roles and economic productivity, resulting in large demands placed on the health care system (Lepine, 2002; Wang, Simon, & Kessler, 2003). While many people suffer from an anxiety disorder, the majority never seek treatment (Henderson, 2002; Roness et al., 2005; Wang, et al., 2005) Sareen, Cox, Afifi, Clara, and Yu (2005) found that approximately 20% of the Canadian population is in need of some form of mental health care.

Unlike relatively mild and short-lived anxiety that is caused by a specific event, anxiety related to an anxiety disorder lasts longer and has a significant impact on a person's daily life. These disorders often occur together or with other mental and physical illnesses, making the symptoms worse and access to treatment more difficult.

Anxiety Disorders can co-occur with Depression, but are distinct diagnoses and often occur separately from other mental disorders such as schizophrenia. The current Diagnostic and Statistical Manual for Mental Disorders (DSM-IV-TR; American

Psychiatric Association, 2000) lists seven general categories of anxiety disorders: panic disorder, social anxiety, specific phobia, obsessive-compulsive disorder (OCD), generalized anxiety disorder (GAD), post-traumatic anxiety disorder, and acute stress disorder. In addition, an anxiety disorder can be classified as caused by a medical condition or substance use. If the presenting symptoms do not meet criteria for a specific anxiety disorder but still cause significant distress to the client, an anxiety disorder can be classified as *not otherwise specified* (NOS). Moreover, children can present with another category of anxiety disorders known as separation anxiety disorder; however, this diagnosis is classified as a disorder of childhood rather than being clumped with other disorders that are more prevalent in adulthood.

There are a number of studies indicating that many individuals are not receiving needed treatment for anxiety disorders. Some demographic variables that appear to correlate with accessing mental health services are being under 60 years of age, being female, being non-Hispanic white, having been previously married, having middle or high income, having comorbid disorders, and living in an urban setting (Chartier-Otis, Perreault, & Bélanger, 2010; Sareen, Cox, Afifi, Clara, & Yu, 2005; Wang, et al., 2005; Wethwell et al., 2009).

Mental health issues are more prevalent in marginalized (lower SES, less educated, minority cultural groups) populations. This raises the concern that if those most likely to have mental health issues are accessing care the least, then the real cost of mental illness in society must be greatly underestimated. An important question should thus be how we can improve access to treatment for anxiety disorders, especially in populations where access to any health care is already difficult.

Governmental focus over the last few decades has been on improving access to care, especially for marginalized populations. Despite increased interest in improving access, Wang et al. (2005) found little improvement in accessibility to treatment since the early 1990s. They suggested that current efforts should focus on outreach efforts in order to expand access to care for all demographics.

*Cognitive Behavior Therapy for Anxiety*

There are several empirically supported treatments for anxiety, such as Cognitive Behavioral Therapy (CBT) (either individual or group-based), self-help treatments, "talk" therapies, and various psychotropic medications.

CBT is a well-researched and recognized treatment for anxiety (Antony & Stein, 2009). Both the American Psychological Association and the Canadian Psychological Association support CBT as an empirically validated treatment for anxiety disorders. While traditional psychotherapy usually does not provide clients with specific weekly plans, CBT practitioners guide their clients through specific exercises in scheduled sessions. The client receives homework assignments given by the therapist to practice skills that are learned in sessions. CBT usually consists of several components which typically include psychoeducation, cognitive restructuring, exposure treatment, relaxation training, problem-solving strategies, and assertiveness or communication skills training. Practitioners usually combine these components, presenting different strategies across sessions.

Effective CBT depends on the client's understanding of anxiety. Therapists thus devote some time to educating the client about his or her specific disorder and anxiety in general – a process termed *psychoeducation*. Psychoeducation on anxiety disorders

usually covers information about the nature of anxiety, normal vs. problematic anxiety, why anxiety is maintained, specific symptoms for different anxiety disorders, and treatment options (Kase & Ledley, 2007).

Cognitive restructuring is a core component of CBT that focuses on processes such as automatic thoughts, cognitive errors, and how clients can address cognitive errors that may be maintaining anxiety. Addressing cognitive errors is a five-step process (Kase & Ledley, 2007). Clients are taught to: (1) be aware of their thoughts; (2) label their thoughts; (3) question their thoughts; (4) label their thoughts as logical or illogical in the context of the situation; and (5) come up with rational explanations and increasingly adaptive ways of thinking. This process includes making the client aware of his or her automatic thoughts, overestimation of the probability of danger in a situation, and overestimation of the cost of negative events. Clients practice these skills both in session and through homework assigned by the therapist. Homework is designed to address the specific difficulties within each anxiety disorder in a systematic manner. For example, a therapist might provide an activity designed to help a client identify negative thinking and change it to neutral or positive thinking via a thought record, whereby the client specifies thoughts and responses to them in particular situations.

Cognitive distortions are both a maintaining and an etiological variable in anxiety disorders; however, avoidance conditioning also plays a large role in maintaining anxiety. Avoidance conditioning is one step removed from escape conditioning whereby the individual engages in some behaviour to terminate aversive stimuli. Individuals with OCD frequently engage in escape behaviours, performing rituals apparently in order to escape the anxiety produced by a stimulus (for example, washing after touching a surface

to escape the anxiety produced by contamination fears). Avoidance conditioning occurs when individuals learn that by performing certain behaviours, they can avoid or reduce subsequent instances of anxiety. For example, some people may avoid public situations where they may have a panic attack. This avoidance not only maintains the anxiety-avoidance behaviours (such as staying home rather than going out) associated with anxiety, but also maintains the anxiety itself because the individual does not gain experience of going out without panic attacks. The avoidance of anxiety also (at least in theory) reinforces the dysfunctional thoughts regarding the panic attack. This avoidance-anxiety cycle is prevalent across all anxiety disorders; therefore, breaking this cycle is one of the main focuses of CBT. One of the strengths of CBT is its attempts to address both dysfunctional thoughts and the avoidance of the anxiety-producing situations by having clients becoming more mindful of automatic thinking that may be contributing to maintenance of anxiety producing situations that they would usually avoid, and encouraging exposure to those situations, thus extinguishing the anxiety over repeated exposures.

The effectiveness of treatments designed to deal with avoidance are well documented. Hayes, Beevers, Feldman, Laurenceau, & Perlman (2005) stated that reducing avoidance was not only key to the treatment of anxiety disorders, but also an essential component of the treatment for depression. They noted that exposure to emotional content did not need to occur *in vivo,* but could effectively occur through writing about a situation that elicits negative emotions. It appears that writing about depression or anxiety decreases the frequency of avoidance of anxiety-producing

situations, and increases an individual's ability to process information related to their disorder.

While there is good support for the effectiveness of CBT, individual client factors such as willingness to partake in exposure, type of anxiety disorder, and expectancy of treatment outcomes can affect the effectiveness of the treatment (Chambless, Tran, & Glass, 1997; Rosenthal, 2010; Safren, Heimberg, & Juster, 1997). Borge, Hoffart, & Sexton (2010) reported that age of onset of symptoms and expectations were the most powerful predictors of post treatment outcome for social anxiety. Part of the difference in treatment effects may be accounted for by differing degrees of resistance to exposure exercises which are a key component to any anxiety treatment program. Given the importance of exposure, any treatment will have limited effect if clients will not engage in exposure exercises. Ensuring client perception of treatment is accurate can be one way to improve compliance. Ahmed & Westra (2009) noted that individuals who were given a strong rationale for a particular treatment not only had a stronger positive response to the treatment than their counterparts who were not given the rationale, but also had stronger perceptions of the effectiveness of the exposure post-treatment.

While some expectations appear to improve treatment outcomes, other expectations may initially increase anxiety. In a study by Moore, Chung, Peterson, Katzman, & Vermani (2009), individuals with social anxiety who were more sensitive to anxious stimuli and had higher expectancy for anxiety-provoking situations demonstrated increased pre-treatment anxiety, but also were more likely to engage in exposure exercises. This increased exposure directly related to a reduction in anxiety and increased expectations for treatment effectiveness.

Traditional CBT is conducted either as a one-to-one treatment or in small groups. Lovell and Richards (2000) noted that while CBT is clearly effective in treating anxiety disorders, the current delivery methods are insufficient. Fortunately, CBT is well suited to more flexible delivery methods, which some clients require. Some therapists have attempted to formulate brief interventions for anxiety; however, these interventions are typically more expensive than group or community interventions and do not allow time to focus on the social aspects of anxiety (Werch et al., 2006). More promising has been the development of self-help based treatments.

## An Overview of Self-Help Based Treatments

Self-help psychology books are frequently used by individuals seeking advice or solutions to interpersonal or emotional problems (Scholz & Forest, 1997). Self-help books can be found on many topics, from relationships to addictions to personality disorders. They are typically written in a non-technical style that is directed towards individuals with problems rather than professional therapists (Starker, 1988). Therapists may suggest that a client read a specific self-help book as an adjunct to regular treatment. Norcross (2000) found that up to 85% of practicing mental health professionals use some form of self-help material with their clients, and that therapists believed that self-help materials, while not always effective, were not harmful. Rochlean (2004) argued, however, that while there is a general positive attitude towards self-help literature, it is important to obtain empirical data on the effectiveness of this material prior to offering these options to clients. He cautions that the general public may have little understanding of what to expect from treatment, and thus self-help treatments used without guidance by

a qualified professional may result in decreased satisfaction or even harm if the expectations for treatment are unrealistic.

Work by Delin and Delin (1990) suggests that over 80 percent of self-help readers are looking for direct, accurate instruction to solve the problems in their lives. Hirai and Clum (2006) found that while the effect size of self-help treatment alone was lower than therapist-directed treatment, treatment effects with self-help materials alone were significantly better than no-treatment controls and attrition rates for self-help treatments were similar to that of therapist-directed treatment. Thus, self-help materials may be an option for clients who cannot access care; or as a precursor to treatment (Walker, Vincent, & Furer, in Antony & Stein, 2009). Unfortunately, most self-help literature is not developed by licensed practitioners, and so the benefits of such literature are not consistent. Carlbring and Andersson (2006) suggested a breakdown of self-help treatments into four paradigms based on the amount of contact a client has with a therapist:

(1) *Client-administered* or *pure self-help*. In this paradigm, clients self-diagnose their anxiety and complete all forms of treatment without the guidance of a therapist. Online support groups are an example of this method of treatment.

(2) *Predominately self-help*. In this paradigm a client may get an initial assessment by a therapist or some help with the choice of self-help materials, but without follow-up treatment.

(3) *Minimal-contact* therapy. This is by far the most researched of the self-help treatment paradigms, but there is no standard form of it (Carlbring & Andersson, 2006).

In this paradigm, a therapist has active involvement with the client in treatment, but to a lesser degree than in traditional therapy

(4) *Predominantly therapy.* In this paradigm, therapists may use self-help materials within their regular sessions with clients who come for traditional (regular contact) treatment. In general, self-help treatments are better suited for treating general problems such as anxiety as opposed to treating more specific behaviour problems such as habit disorders (Gould & Chum, 1993; Marrs, 1995).

The use of Technology in Self-help Treatments

The use of computers to treat various anxiety disorders has been widely documented. Computers were being incorporated into treatment as early as the 1960s and have proven effective in assessment and treatment of numerous disorders, either as an adjunct to treatment, as a platform for a virtual support group, or as a stand-alone treatment (Andersson, 2009; Tate & Zabinski, 2004).

The progressive application of technology to treatment can be seen in four main waves, (Cavanagh & Shapiro, 2004). The first wave consisted in programs that aimed to simulate therapist-client dialogue. An example is the ELIZA program, where a computer was programmed to respond to various statements that a client may make during a session. These programs are rarely used for treatment today, primarily because clients prefer to have some form of human contact and were not satisfied by a wholly automated therapist (Cavanagh & Shapiro, 2004).

The second wave was the application of technology to behavioural treatments, such as exposure-based-therapy. Practitioners treating specific and social anxieties have made use of computer technology to generate virtual exposure therapies for their clients

whereby clients are exposed to graphical representations of their feared stimulus. For example, a computer may be used to generate images of a spider for someone with arachnophobia or an audience for someone with social anxiety. Virtual reality treatment is often used in conjunction with other treatments and is usually therapist guided. Clients participate in an exposure program similar to what they would experience with regular *in vivo* exposure; however, the use of computer technology has allowed for the creation of situations either that would be too difficult to create *in vivo* due to both time and cost. The ease with which virtual reality can be used within the confines of an office, with a therapist present, is a clear advantage. Virtual reality therapy has been shown to be effective in treating numerous anxiety disorders, including panic disorder, agoraphobia, OCD, social anxiety, and specific phobia (Krign, Emmelkamp, Olafsson, & Biemond, 2004; Wiederhold & Wiederhold, 2005).

The third wave involves educating clients using programmed instruction about their disorders and the treatment of the disorder (psycho-educational components) combined with cognitive treatments. These programs are still currently in use; however, studies on them that incorporate rigorous methodology with strong controls are lacking. While there have been some small-scale, uncontrolled studies using palm-held devices, there is insufficient evidence to draw definite conclusions regarding the effectiveness of such programs to bring about behaviour change (Cavannah & Shapiro, 2004).

The fourth wave focuses on using computers to deliver CBT in a fashion similar to the way clients would experience it in traditional therapeutic settings. Within this wave, one can distinguish online therapies on the basis of how much contact a client has with the therapist or others (Newman, Erikson, Przeworski, & Dzus, 2003). In traditional

treatment paradigms, clients meet in small groups or one-on-one with a therapist, usually for about 6 to 8 sessions. The first few sessions consist of educating the clients about their disorder, what anxiety is, how it can become problematic, typical problems experienced by those with anxiety, treatment options, and the rational for treatment. The remaining sessions focus on providing the clients with skills to improve their coping and reduce their anxiety. Common topics include relaxation training, limiting cognitive distortions, awareness of dysfunctional automatic thinking, and methods to change these dysfunctional thoughts. Similar to the differentiation by Carlbring and Andersson (2006) of self-help treatments into four paradigms, Newman et al. (2003) listed four variations of technology-assisted treatment based on the amount of contact a client has with a therapist. Technology-assisted therapy can be (a) completely self-administered, meaning that there is little to no contact with a therapist, (b) predominately self-administered, where a therapist periodically checks in with the client, but mostly just provides the initial rationale for treatment, (c) minimal contact, in which the therapist is actively involved in directing the interventions, but does not meet with the client in person on a regular basis, and (d) predominantly therapy, which is the traditional treatment modality in which a therapist meets with the client in person at regular intervals, but may also assign certain materials or technology-assisted program for homework

The fourth wave is similar to traditional treatment in that units of material are developed following a pattern similar to what a therapist would provide in a session, but with reduced or no contact with the therapist. That is, the information and guidance usually provided to the client in a session is provided via technology. While limited, current research indicates that the effectiveness of this type of treatment is comparable to

that of therapist-directed treatments (Knaevelsrud & Maercker, 2007; Richards & Alvarenga, 2002; Spence, Holms, March, & Lipp, 2006; Spek, Cuijpers, Nyklicek, Smits, Riper, Keyzer, & Pop, 2008).

CBT has been delivered in computer-mediated and online environments to treat numerous mental health concerns. Problems successfully treated include stress-related absenteeism (Grime, 2004), anxiety and depression (Andersson et al., 2006; Carlbring, Furmark, Steczko, Ekselius, & Andersson, 2006;Gega, Marks, & Mataix-Cols, 2004; Proudfoot et al. 2003, 2004; White, Jones, & McGarry, 2000), generalized anxiety disorder/social anxiety (Berger, Hohl, & Capar, 2009; Przeworki & Newman, 2004), insomnia (Vicent & Lewycky, 2009), post-traumatic stress disorder (PSTD), and pathological grief (Lange et al. 2000). It has been used also in psychiatric in-patient treatment (Strong, Kinnaman, Farrell, & Bisconer, 2006) and for assessment (Butcher, Perry, & Hahn, 2004).

Newman et al. (2003) found that technology-based treatments were as effective as traditional treatments. Further, clients appear to be satisfied with materials being presented solely via technology (Fletcher et al., 2005; Mead et al. 2005; Richards, 2009). Unfortunately, while there are an increasing number of studies on technology-assisted treatments (Reger & Gahm, 2009), it is difficult to compare the studies because most do not specify key information such as the exact nature of therapist involvement, cost of the intervention, or the degree to which participants implemented the various components included in the treatment.

There is still only limited research on computer-based CBT, with the focus of that research being on two main Wave 4 applications of computers. The first is as an adjunct

to treatment. For example, *Good Days Ahead: The Multimedia Program for Cognitive Therapy* (Wright, Salmon, Wright, & Beck, 1995; Wright & Beck, 2002; Wright et al. 2002) combines traditional face-to-face CBT with computer components. The limited published research on this program does support its use. The 22% attrition rates that occur are similar to the attrition rates in traditional therapy (Cavannah & Shapiro, 2004). Another program in this category is *FearFighter*, which is a self-help exposure-based program that does not include therapist contact, but produces similar results to that of a therapist. (Marks, Kenwright, McDonough, Whittaker, & Mataix-Cols, 2004). Marks et al. (2004) found that dropout rates for *FearFighter* were not significantly different from clinician directed treatments, but had higher dropout rates than a computer-delivered relaxation program.

The second Wave 4 application of computer technology in CBT for which there is research is as an exclusive treatment. Proudfoot et al. (2003) developed a CBT-based program called *Beating the Blues* that has been empirically supported in numerous published studies. It has been used successfully to treat anxiety and depression, and it has been shown to decrease the absenteeism caused by these conditions (Proudfoot, et al., 2003). Proudfoot et al. (2004) note an interaction between the severity of the illness and post-treatment improvement, with increased improvement in more severe illness. In addition to better outcomes, individuals with more severe illness pre-treatment were more satisfied with computer-delivered treatment than those in the face-to-face (traditional) treatment group.

The *Beating the Blues* program is a stand-alone treatment. Clients complete the eight modules of the program by going to a centre once a week for 50-minute sessions,

where a nurse ensures that they can log into the system and that they log out when their session ends. Each module comprises different CBT topics, such as automatic thoughts, attributional styles, and problem-solving strategies. Published research documents a 70% completion rate, which is consistent with face-to-face CBT (Cavannah & Shapiro, 2004, Proudfoot et al., 2003, 2004).

The programs mentioned above have been well-researched; however, they should not be considered exhaustive. Unfortunately, none of the stated studies elaborated on the specific computer programs used, nor provided enough detail for replication; a common problem among the current studies into computer-delivered treatments. In addition to the programs discussed above, there are other computer-based treatments for anxiety for which there are published results. Andersson, et al. (2004) found an effect size of .87 when using a computer-based minimal-contact treatment for social anxiety and a .70 effect size with only e-mail contact. Additional publications by Carlbring, et al. (2007) indicated effect sizes as high as .95 with a 93% compliance rate using computer-delivered treatment with weekly telephone reminders. Carlbring & Bohman (2006) noted a 77% success rate in treating panic disorder with computer technology while Titov, Gibson, Andrews, & McEvoy (2009) reported that online treatment can reduce symptoms not only the target disorder but also reduce comorbid symptoms. Further, these results seem to be maintained long-term (Carlbring, Nordgren, Furmark, & Andersson, 2009).

Support Groups in Online Environments

Apart from individual CBT, computers have been used to create online environments for those with anxiety disorders whereby people with similar disorders discuss either in real time or via postings. Online support groups abound both under the

direction of trained therapists and as self-help groups. Online support groups in both categories appear to be comparable in effectiveness and participation to face-to-face groups (Houston, Cooper, & Ford, 2002; Taylor & Luce, 2003); however, more studies are needed to confirm these preliminary findings. Qualitative or anecdotal reports suggest that Web-based groups are effective. Group treatment can be effective with higher client to therapist ratios. Setting up an appropriate group environment, however, is important to the overall success of the group. Yalom (1995) suggests the following eleven therapeutic factors for groups: instillation of hope, universality, imparting of information, altruism, corrective recapitulation of the primary family group, development of socializing techniques, development of imitative behaviour, interpersonal learning, group cohesiveness, catharsis, and existential factors. It would be useful to know if these factors are also important in online therapy groups.

Concerns and Disadvantages of Computer-delivered Treatment

While computer-delivered treatment has many advantages, it is not without criticisms (Abbott, Klein, & Ciechomski, 2008). Anderson, Jacobs, and Rothbaum (2004) list several potential concerns in using technology to deliver psychological treatment, all of which either have not been supported in previous research. It can be addressed using the approach that is the focus of the present research. Ethical use of technology-based information is a concern (Holmes, 2009), especially in light of the high level of abuse and exclusive use of the Internet as a source of information and treatment by the general public. Many self-help groups exist on the Internet, as do many diagnostic tools that enable people to access information that they may not have adequate training to interpret. Again, the use of technology can help address concerns of the quality and accuracy of

information, as well as who can gain access to the information provided. The use of passwords and registration helps address safety concerns regarding the accuracy of information and treatment choices mentioned by Ernst and Schmidt (2004) as well as Anderson et al.(2004). Regular monitoring by mediators of posted material can also help reduce the probability of inaccurate information and guide positive interactions among participants (Abbott, Klein, & Ciechomski, 2008).

Suitability for online treatment is of particular importance when dealing with potential crisis situations such as suicidality (Femichel et al. 2002), abuse, and psychosis (Abbott, Klein, & Ciechomski, 2008). Marks et al. (2003) screened for suitability of clients for computer-based CBT and found that 79% of the clients seeking treatment were suitable for the computer program as they did not present with high-risk symptoms such as psychosis or suicidality. The reduction of almost 80% of clients needing direct care would not only reduce cost and waiting times, but also make therapists more immediately available for those who need face-to-face contact. Overall, there does not seem to be any evidence that treatments delivered via technology are more likely than traditional face-to-face treatment to experience pitfalls such as client/therapist relationship issues and attrition. Thus the potential benefits of using technology to deliver treatment makes the technology well worth investigating.

Another criticism is not limited to computer-based treatment but is generalized to the new "computer era". Many proponents of traditional treatment argue that treatment that is exclusively delivered via computer supports and even encourages social isolation. However, McKenna, Green, and Gleason (2002) reported that socially anxious individuals who partook of online treatment not only did not become more isolated but

instead developed more relationships online than in person, and that the reduction in social anxiety was maintained in their everyday lives. That is, the social relationships developed in online environments generalized more readily to clients' daily lives than social relationships in more traditional group treatment did. The authors suggest that in online environments socially anxious clients do not have to worry about things such as appearance, mannerisms, and shyness. Without these concerns, the environment can become akin to more traditional systematic desensitization program for specific phobias – i.e., a program in which clients are exposed in a gradual manner to specific stimuli that elicit intense anxiety. Clients can be encouraged to gradually expose themselves to increasingly anxious situations online such as replying to a conversation, then initiating conversation, or maintaining a friendship with someone online.

The impact of the use of technology on the therapist-client relationship has also been raised as a concern. There is no evidence to date that the use of technology has a negative impact on therapeutic alliances. That is, the relationship between the therapist and the client that facilitates and improves treatment does not seem to be hurt in any way by the use of technology (Chu, Choudhury, Shortt, Pincus, Creed, & Kendall, 2004; Knaevelsrud & Maercker, 2007). In fact, properly managed, the use of online interactions can actually allow for relationships to develop that otherwise could be limited by access concerns. This increased accessibility to both therapists and other individuals who suffer from the same disorders is one of the main benefits to the use of properly managed technology. Technology delivered treatments should probably be restricted to non-experiential based treatments, since missing non-verbal cues make it difficult to produce the environment of more traditional, highly experiential

psychotherapy. Step-care, whereby clients partake in the computer-based treatment as either a precursor to traditional treatment or after discharge from traditional therapy, is also an alternative to help ensure successful application of technology (Tate & Zabinski, 2004).

Anderson et al. (2004) list access and barriers to the use of technology as a concern in the development of technology-based treatments. Currently, the majority of individuals in North America have either personal or public access to the Internet. Sirouatka (2002) noted that the National Institute for Mental Health (NIMH) Website logged as many as 7 million hits every month. In fact, more people are likely to have access to Web-based treatment than to traditional treatment because the Internet reduces barriers such as costs and distance. McCrone et al. (2004) demonstrated the cost-effectiveness of technology-based treatments, including the reduced costs that result from the accessibility of these treatments to marginalized populations.

Benefits of Computer-delivered Treatments

Although the efficacy, cost-effectiveness, and client readiness of computer-delivered programs has been questioned (Proudfoot, 2004), computer-based treatment addresses many of the concerns in health care today (Richards, 2009). While incidence of most disorders is increasing steadily, accessing care by trained health care providers and funding for treatment continues to be difficult (Canadian Psychological Association, 2009; Beesdo, Bittner, Pine, Stein, Hofler, Lieb, & Wittchen, 2007; Cartwrigth-Hatton, McNichol, & Doubleday, 2006). Computer-based CBT has been shown to be both a cost effective and a clinically effective method of treatment that stands to address the growing need for access to therapy (Berg, Shapiro, Bickerstaffe, & Cavanaugh, 2004; Cavanaugh

& Shapiro, 2004; McCrone et al., 2004; Tule & Zabinski, 2004). Numerous studies have demonstrated that time demands placed on therapist can be reduced up to 50% by using technology (Andersson & Carlbring, et al., 2006; Clark et al., 1999; Proudfoot et al., 2004). The flexibility in time dependency also helps to address the shortage of trained therapists, since computer programs allow one therapist can take on more clients then would be otherwise possible (Tule & Zabinski, 2004).

WebCAPSI as a treatment modality

With the increased use of technology offering greater access to information than ever before, well-defined and studied programs that can deliver treatment are needed. While some factors (e.g., instillation of hope, imparting of information) can also be created in individual therapy, others (e.g., group cohesiveness, interpersonal learning) are exclusive to group dynamics, and are thus lacking in most computer-based treatments because most computer-based treatments are individually focused. There appears to be no computer-based program that combines the effectiveness of CBT for anxiety and depression with the use of group dynamics. This is a significant lack given that there are aspects of therapy that cannot be created in a simple dyadic relationship. Developing a computer-based program that combines both the benefits of individual therapy and the social benefits of group interaction would be a positive step not only toward enhancing the current online treatments available for individuals, but also address increasing financial and personnel concerns that access to treatment.

A computer-based program that addresses all of the above concerns and benefits can be developed by a fairly straightforward modification of a program called Computer-Aided Personalized System of Instruction (CAPSI), which is currently used to teach

several courses at several universities including the University of Manitoba. Recently, CAPSI has been upgraded to a web-based program, which I will refer to as WebCAPSI. WebCAPSI focuses on incorporating mastery learning and peer-review in an online learning environment in which students write unit tests at their own pace and then serve as peer reviewers for units on which they have demonstrated mastery (Pear, 2002, 2003; Pear & Crone-Todd, 1999, 2002; Pear & Kinsner, 1988; Pear & Martin, 2004; Pear & Novak, 1996). CAPSI, and now WebCAPSI, is an outgrowth of personalized system of instruction (PSI) – a proven effective instructional method (Keller, 1968; Keller & Sherman, 1982). A meta-analysis by Kulik, Kulik, and Bangert-Downs (1990) indicated that PSI facilitates the learning process more effectively than traditional lecture methods; however, Eyre (2007) notes that PSI isn't being used to its full potential. For further details regarding WebCAPSI, visit www.capsi.org.

The application to teaching of principles derived from the science of learning (Pear, 2001; Halpern & Hakel, 2002) is an important ingredient of any method designed to foster critical thinking (Jonassen, 2002; Reeves, 2000). The development of critical thinking skills is important if we expect people to be able to function independently and apply their previous learning to new situations. WebCAPSI effectively incorporates well-established principles of learning (e.g., frequent and immediate feedback or reinforcement), and provides a virtual laboratory for the study of the development of learning and critical thinking (Crone-Todd, 2002). WebCAPSI accomplishes this because: (a) its parameters are well-specified and amenable to modification, and (b) it archives all transactions in a readily accessible format for any type of data analysis. It is difficult for an instructor to evaluate and provide effective feedback to students for all the

written material generated by each student when there is a large enrolment or the instructor develops a course with a large written evaluative component. Through WebCAPSI, however, feedback is provided on all written responses by the systematic use of peer reviewers.

Peer review within the WebCAPSI Program

A potential use of WebCAPSI in a modified form would be as a treatment protocol of psychological interventions for anxiety disorders. Rochlen, Zack, and Speyer (2004) list the following as major benefits of technology-based treatments: convenience, increased access, disinhibition and internalization, reflection, the therapeutic effects of writing, telepresence and decreased transference, and hypertextuality. The design of WebCAPSI should include all of these benefits due to the interaction among peers, increased availability of trained therapists due to reduced time demands, and the elaborative answers given within each study unit by clients. WebCAPSI can provide these benefits because it already has been shown to be effective and user friendly in teaching; and, being based on learning principles, CBT can be regarded as a teaching process that can incorporate WebCAPSI.

Given the frequency with which people suffering from social anxiety use the Internet as a means of increasing social interactions (Rosenthal, 2010), online treatments could expand the format of group support by incorporating peers right into the exposure component of a treatment. While it has long been proposed that individuals with social anxiety fear negative evaluation, recently, this notion has been expanded that people with social anxiety may fear evaluation *in general* (Weeks, Heimberg, & Rodebaugh, 2008). Further, individuals with social anxiety often show greater memory for any perceived

negative feedback on their own performance compared to their recall of feedback on others' performance (Cody, & Teachman, 2010). While individuals with social anxiety may be more vulnerable to forgetting feedback relating to an evaluation, this feedback can reduce their underestimations of their own performance, as well as decrease their perception of the frequency of feared outcomes (Chen et al., 2010; Taylor & Alden, 2010). WebCAPSI's use of peer review may thus function not only as an increased exposure to evaluation, but in addition the written feedback may provide an added benefit to help minimize the cognitive distortions related to that feedback which are common for those with social anxiety. Further, given that clients using WebCAPSI would likely receive feedback from multiple sources, and would provide an evaluation of many other clients' responses on the same questions, this repetition may serve as sufficient exposure to improve accuracy of perceptions of their own performance relative to others.

## Hypotheses

Four main hypotheses were tested in the present study. First, it was hypothesized that participant anxiety, as measured by scores on two anxiety measures, would be lower after completing five treatment units on CAPSI than those who only read the materials (control group). Second, it was hypothesized that participants in the treatment group would have higher treatment expectancy scores than those in the control group. Third, it was hypothesized that participants in the treatment group who had more severe anxiety pre-treatment would show greater benefit from the treatment. Additionally, those with more anxiety pre-treatment would complete more unit tests and peer review. Finally, it was hypothesized that participants who choose to peer review would have greater reduction in anxiety than those who do not peer review, and those who have higher levels

of anxiety and peer review will make more gains than those with lower levels of anxiety who complete the treatment program without serving as peer reviewers.

## Method

### Participants

Two-Hundred-and-Eighty undergraduate students from the University of Manitoba were recruited for participation in this study. Potential participants were informed that they must be at least 18 years of age in order to provide informed consent and must be fluent in English, because the participants were required to read materials presented in English. This requirement was made clear at the time of recruitment.

Participants signed up for the study via an online recruitment procedure used at the University of Manitoba that offers research participation experience to Introductory Psychology students in exchange for partial credit towards their course. Participants were required to provide written consent prior to completing the study (see Appendix A). Once consent was received, participants were randomly assigned to either the treatment or control condition using a random number table, and were sent specific instructions on completing the study based on which group they were assigned. Along with the instructions, participants were each assigned a unique study ID, which they were instructed to use throughout the study both to log into the WebCAPSI program as well as an ID number for the Survey Monkey questionnaires. This user ID also served as their study ID so that data from the various measures could be linked with a particular participant without using participant names. A master sheet with participant names and user IDs was kept for the length of the study so that user ID could be provided to

participants if they forgot their IDs. These sheets were shredded upon the completion of the study so that no names could be linked to the responses.

Three participants did not provide consent and did not continue with the study. Once participants provided consent, they were randomly assigned to either the treatment or control group using a random number table, resulting in 139 participants in the Treatment group and138 participants in the control group at the beginning of the study. Specific instructions were sent to participants depending on whether they were assigned to the treatment or control group (see Appendix B). Seventeen participants in the control group and 8 participants in the treatment group were excluded from the final analysis because they did not complete at least two of the three administrations of either one or both of the two anxiety measures. Participants were screened for current or past thoughts of self-harm. Participants who self-reported possible self-harm were contacted and provided numbers for additional resources. Three participants in the treatment group were excluded from the final analysis because they reported self-medicating for anxiety. These exclusions resulted in final counts of 128 participants in the treatment group and 121 participants in the control group.

Materials:

Questionnaires:

In addition to the consent form, participants were asked to complete a brief demographic questionnaire (age, gender, year in school, Appendix C), a short survey requesting qualitative feedback on the materials presented (Appendix D), three administrations of the short version of the Depression Anxiety Stress Scale (DASS21, Lovibond & Lovibond, 1995, Appendix E), three administrations of the Leibowitz Social

Anxiety Scale (LSAS, Leibowitz, 1987, Appendix F), and the Credibility/Expectancy Questionnaire (CEQ, Devilly & Borkovec, 2000, Appendix G). These measures were completed by participants via Survey Monkey.

*Depression Anxiety Stress Scale- short form (DASS21, Lovibond & Lovibond, 1995a).* The DASS21 is a widely- available self-report survey that looks at core symptoms of depression and anxiety. It is a 21-item survey, broken into three subscales (Depression, Anxiety, and Stress), with each subscale consisting of 7 items. Each item is rated by the respondent on a scale of 0 to 3, with higher scores reflecting more significant psychopathology. The DASS also provides a total score with cutoffs for diagnoses. The scale has high internal consistency ($\alpha$= .84) and also has a high correlation with the Beck Anxiety Inventory ($r$=.81, Lovibond & Lovibond, 1995b). Moreover, the DASS21 has been shown to have good test-retest reliability ($r$ = *.71 to .81*, Brown, Chorpita, Korotitsch, & Brown, 1997).

*The Leibowitz Social Anxiety Scale (LSAS, Leibowitz, 1987).*

The LSAS is particularly useful for research because not only does it have good reliability and consistency in both clinical and non-clinical populations, but is also widely available and can be completed independently by the participants. The LSAS was initially designed as a 24-item clinician administered diagnostic tool for social anxiety. Therapists would ask clients to provide a 0-3 rating in each of 24 different social situations of both their perceived level of anxiety in the situation and their perceived avoidance of that situation. Higher scores reflect higher anxiety and higher avoidance. More recently, this scale was made available in a self-report version. Both the clinician-administered and the self-report versions have comparably high internal consistency ($\alpha$ =.94), high test-retest

reliability ($r$ =.83) and good convergent and discrimiant validity (Baker, Heinrichs, & Kim, 2002).

*Credibility/Expectancy Questionnaire (CEQ,* Devilly & Borkovec, 2000*).*

The CEQ is a 6 item easy-to-administer scale for measuring treatment expectancy and rationale credibility in clinical outcome studies. The scale has high internal consistency of $r$=0.85 and higher expectancy scores on the scale were found to correlate with significant change scores from pre- to post-treatment treatment on the anxiety subscale of the DASS ($r(120)= 0.20$, $p<0.04$).

Unit materials

Unit materials were developed using a popular self-help book on social anxiety called *Triumph over shyness: Conquering shyness and social anxiety, 2nd edition* (Stein, & Walker, 2009). Materials were provided to the researcher by Dr. Walker and used with permission. All written materials were presented to all participants, but the treatment group received the materials in 3 distinct units, and specific study questions designed to help guide participants' knowledge and understanding of the materials accompanied these units for the treatment group.

The first unit briefly described WebCAPSI and instructed participants how to complete units, peer-review, contact the instructor, appeal a unit test, and monitor their progress online. Participants were informed that they may not need to use all of these features. This instruction was included as only the treatment group was provided the opportunity to peer-review. This unit also introduced participants to social anxiety, focusing mainly on psychoeducation regarding anxiety disorders. The second unit focused more specifically on social anxiety while prompting participants to determine

appropriate goals for their own treatment. This unit also introduced participants to how negative thinking develops and maintains social anxiety and provided instruction on how to recognize and change negative thinking. The final unit presented information on the physical sensations that often accompany anxiety and instructions for relaxation techniques. This unit also included a review of key points participants had learned about, and included worksheet and instruction designed to help participants generalize and maintain the skills in their daily lives.

Procedure

Through login and password restriction, only participants enrolled in the study, the researcher, and her research supervisor had access to the materials on WebCAPSI and Survey Monkey. Participants were provided with a unique study ID once they provided consent, which also served as their password within the WebCAPSI program. Given that the WebCAPSI program only allows those who log in to see the "courses" for which they are enrolled, participants were automatically directed to the treatment or control conditions based on their study ID/login and did not have access to the alternate group pages. Participants were prompted to enter their unique study ID at the beginning of each survey on Survey Monkey. This ID was used to link participant responses on the surveys and with their performance in WebCAPSI and no names were used to link the data.

The study was conducted during a one- week period, but participants were informed that they would be asked to participate in a follow-up questionnaire 3-4 weeks after they completed the main portion of the study. All materials and procedures were completed via Web-based modalities, meaning that participants did not need to be in one

location at a particular time to complete the study but rather completed its components at any point during the one-week time frame.

All participants received a link to complete the baseline measures (demographic questionnaire (Appendix C), DASS21 (Appendix E), LSAS (Appendix F)), a link to the WebCAPSI login page, and were provided daily reminders to complete the study via the University's participant pool recruitment program. Participants were required to complete the online questionnaires within two days of receiving them, but were able to access the WebCAPSI program any time during the study once they had completed the baseline questionnaires.

All participants were instructed to complete the readings within a 3-day time frame. While all participants received the same self-help reading materials via the WebCAPSI program the self-help the materials presented to the treatment group were broken down into specified units that included study questions on the materials (see Appendices H & I). Participants in the treatment group completed online tests on the self-help material to ensure they learned the key concepts. Alternatively, participants in the control group answered questions that were not based on the materials such as providing current anxiety level ratings, and if they had read the materials. These online tests all took place within the WebCAPSI system. WebCAPSI randomly presented three of the eligible questions to each participant per unit test, resulting in different participants potentially being assigned different questions. Participants were not able to move on to subsequent units until they had demonstrated mastery of the material in previous units. The forced mastery component may have resulted in some participants not completing all units within the time frame of the study; however, this is seen as akin to clients dropping out of

traditional treatment prior to the end of the treatment period. All tests for the treatment group were marked either by the researcher or by other participants whereas all tests from control group were computer marked, eliminating any interaction between members of the control group with each other or with the researcher. Participants in both groups were informed they could contact the researcher at any time within the WebCAPSI program if they had any questions. For a visual comparison of the procedure for the treatment and control groups, see Table 1.

The treatment group also had the opportunity to gain peer support and feedback on their answers to the presented materials via peer review within the WebCAPSI program. All participants in the treatment group were made aware of the option to serve as a peer reviewer for other participants; however, specific assignment of participants to either complete peer review or to not participate as a peer reviewer did not take place. The first 15-20 participants who completed each unit test had their unit tests reviewed by the researcher to create a group of peer reviewers who have themselves demonstrated mastery on individual units before reviewing tests from other participants. In addition, in order to ensure participants could progress through the study in a timely manner, the researcher reviewed tests that were sitting in the system for more than 8 hours. Some participants in the treatment group did not have the opportunity to peer review as they consistently completed their unit tests after most of their peers. However, since the participants in the treatment group could select when they completed the unit test, and vary that across days, nearly all participants in the treatment group had the opportunity to serve as peer reviewer at least once.

At the end of the week-long period of study, all participants received a link to complete the LSAS, DASS21, the CEQ, and an open-ended feedback questionnaire via Survey Monkey. They were instructed to complete the surveys within 2 days. Three weeks following the end of the period of study, participants were sent a third link to complete surveys via Survey Monkey and were instructed they had 3 days to complete the surveys. This timeline chosen in order to control the timing of completion of the measures across participants and limit extraneous variables (weekend vs. weekday, exam periods) that may have affected anxiety scores. At the end of the study, participants were debriefed on the purpose of the study, and provided additional resources for managing anxiety (see Appendix J).

### *Results*

Data were collected online via Survey Monkey and within the WebCAPSI program. Both of these programs allow for downloading data directly into Excel. A single Excel file was created that included all data for each participant; and that file was then merged with SPSS 18.0 for the final data analysis. A small sample of mock results was tested using this same methodology to ensure that the merging of files was accurate. In addition, frequency tables of the data were examined for any missing values or data that is out of range, such as anxiety scores above or below ceiling/floor of the anxiety measures. Dummy values of 1 and 0 were assigned for the treatment and control group, respectively. An additional variable was created by subtracting each participant's post-test anxiety scores from their pre-test anxiety scores to create a difference score for each participant in order to evaluate changes in anxiety over time using regression.

*Preliminary analysis*

All demographic variables and baseline anxiety scores were examined to ensure that the groups were relatively similar prior to treatment. Means and standard deviations for demographic and independent variables are presented in Table 2, and did not indicate any significant differences between the groups prior to treatment.

Five participants did not complete either the second or third administration of the DASS and LSAS (either the post-treatment or follow-up) but were included in the analyses for which data was collected.

Data were examined for outliers using stem and leaf plots. Three outliers on the LSAS and two outliers on the DASS were noted at all three administrations of the measures. These scores were kept in the final analysis given that one of the research questions was designed to examine whether people with more significant levels of anxiety had added benefit from the treatment and the scores fell just outside of the upper extension. Of these three, two participants were in the treatment group and one was in the control group.

Residual plots, Box's M test, and Mauchley's test were used to verify that the assumptions of normality, sphericity, independence, and homoscedasticity were met (Tabachnick and Fidell, 2007). Given that the sphericity assumption was violated, the Greenhouse-Geisser correction was employed for all repeated measures ANOVA analyses. All other assumptions were met. Difference scores on the anxiety measures were created to use in the multiple regression for Hypotheses 3 and 4 to avoid multicollinearity.

*Content analysis*

Feedback from the participants was examined for themes on how to improve the program, how easy participants felt it was to complete the program online, and how useful they felt the treatment was at reducing anxiety. Overall, more than 80% of participants indicated that the materials were easy to use, were useful, and indicated they would recommend this treatment to a friend. See Figures 1-2 for a breakdown of participant responses to questions on the feedback questionnaire. In addition to Likert-scale items, 33 participants provided additional open-ended, written feedback on the study. Of those, 18 (54.5%) specifically commented on the usefulness of the treatment, 16 of which were in the treatment group. A chi-square analysis demonstrated that this difference was statistically significant ($\chi^2[1, N = 18] = 10.89$, $p = .001$). Other common themes endorsed by the participants were that the system was easy to use (3 participants, 2 from treatment group) and that there wasn't enough time to complete the study materials (2 participants, both in the control group).

*Statistical analyses*

Table 2 presents means and standard deviations for demographic variables, as well as total scores on the LSAS, DASS21 and CEQ for the treatment and control groups. Correlational analysis was performed for all variables and is presented in Table 3. Consistent with previous research, scores on the LSAS and DASS21 were correlated. Group membership had a significant positive correlation with CEQ scores ($r[247] = .142$, $p < .05$), with treatment group showing higher scores. CEQ scores were also significantly correlated with age ($r[247] = .139$, $p < .05$) and with scores on the DASS21 and LSAS (see Table 2 for specific correlations), with higher anxiety scores reflecting higher scores

on the CEQ. Group membership was negatively correlated with unit test completion ($r$[247] = -.205, $p < .01$), with the control group completing more unit tests. While this difference was statistically significant, the actual difference was small, with a mean of 2.66 unit tests completed by the treatment group and mean of 2.70 unit tests completed by the control group. Finally, the number of unit tests completed was significantly correlated with anxiety scores, with participants scoring higher on anxiety measures completing more units. This correlation was significant for both groups; however, slightly more participants in the control group completed all units than in the treatment group. This difference was not statistically significant ($\chi^2$[1, $N$ =249) = .258, $p$ = .612). Overall, 82% of participants in the treatment group completed at least 1 peer review, and 14% peer reviewing 5 or more tests.

An alpha level of .05 was used for all statistical analysis. Hypothesis 1 stated that participant anxiety in the treatment group would be significantly lower than in the control group post-treatment and at follow-up. To test changes in anxiety scores over time and compare the groups, a repeated-measures ANOVA was employed using LSAS and DASS21 scores for participants at all three intervals (baseline, post-treatment, and follow-up). The repeated measures ANOVA revealed no significant differences between the groups on the LSAS, $F$(1, 223) = .212, $p$ = .646; however, there was a significant difference between the groups on the DASS21, $F$(1, 245) = 4.133, $p$= .043. While the results were non-significant for the LSAS, changes on both the LSAS (Table 4) and the DASS21 (Table 5) were in the predicted direction. After controlling for baseline anxiety, effects between groups were lost on the DASS21, $F$(1, 245) = .191, $p$ = .662, but came closer to significance on the LSAS, $F$(1, 245) = 3.04, $p$ = .083.

Hypothesis 2 stated that there would be a significant difference between group means on the CEQ. To test differences in the group means on the CEQ, a two-tailed independent sample *t*-test was employed. The *t*-test revealed a significant difference between the treatment group ($M$ =29.85, $SD$ = 10.29) and the control group ($M$ = 26.98, $SD$=9.80) on the CEQ; $t(247) = 2.249$, $p = 0.25$. This effect was lost after controlling for baseline anxiety, $F(1, 245) = 3.59$, $p = 0.06$.

Hypothesis 3 stated that participants with higher anxiety at baseline would have a greater reduction in anxiety than participants with low levels of anxiety. Given that this study was examining the effects of the specific WebCAPSI treatment, only participants in the treatment condition were used to test this hypothesis. Baseline anxiety scores were used as the independent variable while difference scores on the LSAS were used as dependent variables in separate analyses. Only scores on the LSAS were used as they represent a purer measure of social anxiety than the DASS21. Higher baseline scores significantly predicted lower scores at follow-up,
$\beta$ = -.239, $t(126) = -2.76$, $p$=.007. Baseline scores also explained a significant proportion of variance in follow-up scores, $R^2 = .57$, $F(1, 126) = 7.63$, $p = .007$.

Hypothesis 4 stated that participants in the treatment group who chose to peer review would have a greater reduction in anxiety, and that this relationship would be linear. Increased frequency of peer-review did not significantly predict lower scores on the LSAS at follow-up, $\beta = -.052$, $t(126) = -.580$, $p = .563$. Frequency of peer review did not explain a significant proportion of variance in follow-up scores, $R^2 = .003$, $F(1, 126) = .337$, $p = .563$.

# Discussion

This study set out to primarily answer the question of whether the WebCAPSI program could be used to deliver effective self-help based treatment to reduce social anxiety to participants. It was hypothesized that not only would participants be able to complete the study online, but that participants would make more improvement in anxiety based on using the WebCAPSI program as opposed to more traditional self-help. Given that elaborative writing and collaboration in online environments appear to add to the success of a treatment (Richards, 2009), it was hypothesized that individuals in the treatment group would benefit not only from the breakdown of the material into discrete units, but more specifically from being required to provided elaborative answers on the materials during the unit tests and when serving as a peer reviewer. Further, the effect of the treatment was hypothesized to vary as a function of baseline anxiety; with individuals reporting higher anxiety receiving more benefit from the treatment than those with lower levels of anxiety.

## *Overview of Findings*

Consistent with previous research (Andersson, 2009, Berger, Hohl, & Casper, 2009; Richards, 2009), the present study demonstrated that people can use and complete CBT-based treatments online. Age and baseline anxiety scores on the DASS21 and LSAS were correlated with scores on the CEQ, with older participants and participants with higher baseline anxiety scoring higher on the CEQ. Post-treatment anxiety on both the DASS21 and LSAS was also significantly correlated with number of units completed in both groups.

All participants' anxiety scores in both groups decreased significantly (Tables 4, 5) over the course of the study; however, the treatment group also had lower post-treatment scores on the LSAS and significantly lower scores post-treatment on the DASS21 as compared to the control group. While the post-treatment difference between groups in anxiety scores was not statistically significant for the LSAS, differences were in the predicted direction and may have been significant if the study had occurred across a longer time frame (See Figures 3, 4). When controlling for baseline anxiety, significance was lost on the DASS21 but increased to near significant levels on the LSAS.

When comparing mean scores on the CEQ, the treatment group mean was significantly higher than the mean of the control group; however, this difference fell just above significance when controlling for baseline anxiety. This difference may be further supported by the increased frequency of qualitative feedback regarding the usefulness of the treatment from participants in the treatment group.

Anxiety level at baseline appeared to serve as a predictor variable for the degree of change in anxiety score post-treatment and at follow-up, with participants in the treatment group scoring higher on the LSAS and DASS21 at baseline demonstrating statistically larger change scores at follow-up than those with lower anxiety. While peer review was hypothesized to have a similar effect, with increased peer review resulting in larger change scores, this result was not supported in the analysis.

*Measuring Anxiety*

The present study employed the use of two separate anxiety measures in order to capture different aspects of anxiety. While the LSAS is a pure measure of social anxiety,

the DASS21 includes items for general anxiety, depression, and stress. Consistent with previous research (Lovibond & Lovibond, 1995), the DASS21 and the LSAS showed a high degree of correlation. Anxiety levels at baseline were relatively high in both the treatment and control groups, a finding that is somewhat surprising given the use of a convenience as opposed to a clinical sample. This heightened anxiety may have been due to the demand effects of participants starting a study and attempting to complete the study in a novel format (online) as opposed to the more commonplace experience of an on-site experiment. Any increases in anxiety appear to have been consistent across participants given that all participants had the same first day instructions and based on the baseline anxiety scores. While this demand effect may account for some of the decreases in anxiety seen across participants, it does not account for the group differences that were observed. Further, the observed decreasing trend in anxiety scores at follow-up for the treatment group (but not the control group) support changes in anxiety being based on something other than familiarity with the procedures.

*Interpretation of findings*

The prediction of the first Hypothesis that participants in the treatment group would have lower anxiety scores post-treatment than the control group was only partially supported. Given the use of the convenience sample, a potential concern for evaluating changes in anxiety was that there may have been a floor effect- i.e., the participants may have had a level of anxiety that was too low to detect any treatment effects. Evaluation of the mean and range of anxiety scores at all three intervals revealed mean scores well above the floor effects for both measures and ranges allowing for the majority of the sample responding with some level of anxiety.

While within-subject effects were significant across both measures, only scores on the DASS21 were shown to be significantly different between the groups. This result is somewhat surprising given the high correlation between the LSAS and the DASS21 in both the present study and in previous research. Controlling for baseline anxiety increased the treatment effect on the LSAS while diminishing the effect on the DASS21. This result may suggest that the WebCAPSI treatment program produces a general reduction in distress as opposed to specifically targeting symptoms associated with social anxiety. Another possible explanation for the different results across the two anxiety measures is that given the higher test-retest reliability on the LSAS, the short time frame of the study may have resulted in more variability in anxiety scores being captured on the DASS21 as compared to the LSAS.

While the results of the present study did not find statistically significant changes in the LSAS between the groups, a trend for increased change scores on the LSAS (hence lower anxiety) was noticed across time for the treatment group as compared to the control group. While future research would be required to demonstrate any significant effects, it is possible that there would have been significant differences between the groups if more time elapsed between the end of the treatment and the follow-up administration of the LSAS. In light of the observed differences between the treatment and control groups, the present study suggests that there may be some merit in breaking down materials into smaller units and providing specified questions that participants must answer over and above the effects of the self-help materials themselves. These results need to be interpreted with caution as the large sample of University students allowed for detection of even small treatment effects. While the statistical analysis offered mixed results,

qualitative feedback obtained from the participants offered some social validity to the statistical analysis, with more participants in the treatment group offering positive feedback in both their perception of the effectiveness of the program, willingness to recommend the treatment to a friend, and reported enjoying using the online program as compared to those in the control group based on chi-square analysis.

The second Hypothesis predicted that people in the treatment group would have greater CEQ scores as compared to those in the treatment group. The CEQ was included as a way to measure participants' *perceptions* of treatment effectiveness as opposed to actual observed changes in anxiety scores. The significant difference between mean scores on the CEQ for the treatment and control groups was lost when controlling for baseline anxiety; however, the results were near significant ($p = 0.059$). Given the high correlation between anxiety scores and scores on the CEQ, even slightly higher baseline anxiety in one group may have affected the outcome the *t*-test. While this result may support the social validity of the treatment, the results need to be interpreted with caution as participants in both groups responded with a decrease in anxiety scores across the study. Again, the increased frequency of optional qualitative feedback seen in the treatment group may be related to the higher scores on the CEQ, or may be a function of the increased amount of feedback received by the participants in the treatment group throughout the study as compared to the control group. Future studies should attempt to examine if taking part in the WebCAPSI treatment as compared to traditional self-help is indeed correlated with the amount of positive feedback participants provide. This analysis would be important as if the trend holds; the WebCAPSI program may be well-suited to online group treatments that require substantive participant interaction.

Hypothesis 3 predicted that participants with greater baseline anxiety would have greater benefits from the treatment, as demonstrated by higher change scores over time. Again, the present study supported this finding and given the wide range of scores, baseline anxiety does appear to be a good predictor of treatment effectiveness. The inverse relationship noted in the present study between baseline anxiety and post-test/follow-up anxiety levels may be of particular use in clinical populations if participants with higher anxiety find it difficult to attend treatment in person.

The final hypothesis predicted that the frequency of peer review would have an effect on changes in anxiety over the course of the study. This result was not supported; higher frequency of peer review did not appear to result in lower anxiety scores post-treatment. While it may be that peer review does not result in lowered anxiety levels, this result needs to be replicated in future studies, especially given the short time frame of the study. Participants had 3 days to complete the WebCAPSI component of the study, thus limiting the amount of peer review they were able to complete, which resulted in a very restricted range of peer review across participants. Further, this study did not randomly assign participants to peer review, resulting in a self-selection bias. While the sample size allows for detection of even small effects, this restricted range in peer review scores makes comparisons difficult as the majority of the participants were only able to complete 1-2 peer reviews during the study. While results of peer review were non-significant, there may be some social validity for peer review. Over 82% of participants in the treatment group chose to peer review during the study, even given the short time frame they had to complete the rest of the treatment components (e.g. tests), indicating that participants may find some benefit to peer review.

In addition to the findings related to the four hypotheses, participant age was correlated with the CEQ. This finding may be of interest for clinical populations as previous research suggests that older individuals are less likely to seek treatment, have longer delays from the onset of symptoms to seeking treatment, and are less accurate in identifying symptoms (Altamura, Buoli, Albano, & Dell'Osso, 2010; Wetherell, et al., 2009). Perhaps older participants who were presented with the self-help information had better perceptions of the treatment due to increased awareness of their symptoms as compared to younger participants. Again, this relationship between age and CEQ scores needs to be interpreted cautiously, given that the majority of participants fell within a 2 year age span.

*Limitations*

The major limitation of this study was its short time frame. Participant baseline and post-treatment anxiety scores were recorded within the same week so any changes need to be interpreted cautiously. While the results of the follow-up lend support to the overall findings, the follow-up questionnaires were administered 1 month after the treatment, limiting the opportunities for participants to actually practice and implement the skills learned consistently in their everyday lives. The large sample size allowed for even small effects to be detected, and the significant results are a positive sign, suggestive of the treatment's effectiveness even within the very short time frame of the present study.

This short time frame also significantly limited participants' ability to peer review. The restricted range of peer review may have contributed to non-significant findings on Hypothesis 4 and future studies should therefore re-examine the effectiveness

of peer review before eliminating this feature from an otherwise potentially successful treatment. Random assignment of participants to a peer review or no peer review condition while holding the treatment constant should be employed in a future study to effectively test the effects of peer review as a separate treatment effect.

A further limitation of this study is its sole reliance on self-report measures. While we attempted to limit potential confounding variables such as concurrent professional treatment and self-medication, information on these confounds was only obtained from the participants themselves. The anonymity of the results may have encouraged accurate disclosure; however, alternative sources of information such as medical files or other reports would lend additional strength to the exclusion criteria. Other or clinician measures of anxiety may also have lent additional support to the findings by including alternative measures than self-reported levels of anxiety; however the use of self-report measures is commonplace both in research and in clinical practice. Further, the measures used are well-established self-reports with good overall internal and external validity. In addition, there may have been other potential confounds (such as treatment for physical symptoms of medical disorders which mimic anxiety) that were not included on the demographic questionnaire.

Generalization of the results of the present study is limited given the convenience sample of undergraduate University students. While a wide range of anxiety scores were observed at all three testing points, this population typically has other characteristics such as higher amounts of education, higher socio-economic status, and substantially higher literacy skills than the general population. Further, university students participating for course credit may have more motivation to complete all of the reading as compared to a

clinical sample who must juggle other aspects of their lives and be less inclined to complete exposure exercises that elicit anxiety. Ultimately, university students may be more amendable to a short-term, information-based treatment as opposed to longer term treatments where a client develops a relationship with a particular therapist which may be more compelling for clinical samples.

*Future directions*

Given that this was the first time WebCAPSI was used to deliver treatment; future research should focus on replicating the findings of this study prior to any generalized statements on the effectiveness of this program. In addition to direct replication, future studies should expand on the time frame used in the present study to improve evaluation of specific components such as self-pacing and peer review. Specifically, expanding to a 3 month time frame may allow for easier comparison to traditional 8-12 week interventions and would be easy accommodated in a single term if using undergraduate students. Ultimately, this program would need to be tested with a clinical population to address concerns of generalizability; however, it may be prudent to test the program with non-clinical samples until stronger results supporting which program components mediate reduced anxiety are established.

One way to bridge the gap between undergraduate students and a clinical population would be to run a study where participants would be pre-screened for anxiety and assigned to conditions using a matched-sample technique, as well as ensuring adequate sample size of participants who meet criteria for clinical levels of anxiety. This type of study would provide the benefits of a sample who is capable of reading materials and responding to questions but still demonstrate clinical levels of anxiety prior to trialing

the program within a population that may have significant difficulties reading or using a computer.

*Societal implications*

The present study, while preliminary, is consistent with previous findings that CBT treatments for anxiety are well-suited to computer administration (Andersson, 2009; Berger, Hohl, & Casper, 2009; Carlbring, Nordgren, Furmark, Andersson, 2009; Richards, 2009; Titov, Gibson, Andrews, & McEvoy, 2009). Further, this study suggests that computer treatments that focus participants' study on key concepts within self-directed treatments by breaking down the materials into smaller sections and requiring written answers to study questions may provide additional benefits than self-help treatments alone. The qualitative feedback from participants indicates that the materials and WebCAPSI program were easy to use and effective at reducing perceived anxiety. Participants indicated that they appreciated being able to access the system at any point over the week and this self-pacing did not appear to impact completion of the study as the majority of participants who began the study completed it. Given that previous research has suggested that the most common barriers to care include cost of treatment, appointment times, and knowing where to get help (Chartier-Otis, Perreault, & Bélanger, 2010; Sareen, Cox, Afifi, Clara, & Yu, 2005; Wang, Lane, et al., 2005; Wethwell, et al., 2009), a program that is time-and-place independent that requires limited monitoring by a trained clinician while still offering empirically supported treatment would address the growing need for care. While other online treatment programs for social anxiety exist, the WebCAPSI program is unique in its use of peer reviewers. Given that social anxiety is a

disorder characterised by avoidance of social situations, interaction among participants may be an important feature of any treatment designed for this disorder.

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Table 1

*Procedure differences between groups*

| Treatment | Control |
|---|---|
| • Unit materials broken down<br>• All tests comprised of questions assigned to each unit<br>• Completed peer review of other participants' tests and received feedback from experimenter | • Unit materials as one pdf<br>• All tests comprised of simple ratings or yes/no answers<br>• No peer review or feedback- computer marked tests |
| Day 1: complete Demo questionnaire, LSAS, DASS21 on Survey Monkey | Day 1: complete Demo questionnaire, LSAS, DASS21 on Survey Monkey |
| Day 2: (*Suggested)* Complete Tuesday readings. Complete Test 1 , peer review | Day 2: (*Suggested)* Complete some readings. Complete Test 1 |
| Day 3: (*Suggested)* Complete Wednesday reading. Complete Test 2, peer review | Day 3: (*Suggested)* Complete some reading. Complete Test 2 |
| Day 4: (*Suggested)* Complete Thursday reading. Complete test 3, peer review | Day 4: (*Suggested)* Complete some reading. Complete test 3 |
| Day 5: Complete Feedback questionnaire, CEQ, LSAS, DASS21 | Day 5: Complete Feedback questionnaire, CEQ, LSAS, DASS21 |
| A follow up administration of the LSAS and DASS21 occurred 3.5 - 4 weeks after Day 5. Participants completed these measures on Survey Monkey. | |

Table 2

Means and Standard Deviations for Independent and Demographic Variables

| | Treatment | | Control | |
|---|---|---|---|---|
| | Means | SD | Means | SD |
| Year in Program | 1.15 | .45 | 1.25 | .70 |
| Age | 19.10 | 2.08 | 19.74 | 4.17 |
| Units completed | 2.82 | .54 | 2.99 | .09 |
| Peer preview completed | 2.18 | 3.59 | n/a | n/a |
| CEQ | 29.86 | 10.45 | 26.96 | 9.81 |
| DASS21 Baseline | 13.52 | 10.43 | 10.64 | 9.20 |
| DASS21 Post-treatment | 11.03 | 9.15 | 9.49 | 8.31 |
| LSAS Baseline | 43.38 | 19.35 | 39.45 | 21.86 |
| LSAS Post-treatment | 35.60 | 20.00 | 36.16 | 22.45 |
| LSAS Follow-up | 34.42 | 20.32 | 33.99 | 25.49 |

Notes:

CEQ = Credibility/Expectancy Questionnaire
DASS21 = Depression Anxiety Stress Scale – short form
LSAS = Leibowitz Social Anxiety Scale

Table 3

*Correlations Between Measures*

| Measure | Group | Year in program | Age | DASS21 Time 1 | DASS21 Time 2 | LSAS Time 1 | LSAS Time 2 | LSAS T3 | Units | Peer review | CEQ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Group | 1 | -.093 | -.098 | .138 | .87 | .107 | .015 | .005 | -205**a | b | .142* |
| Year in Program | | 1 | .406** | .019 | .56 | .083 | .88 | .059 | .101 | .095 | .107 |
| Age | | | 1 | -.044 | -.025 | -.047 | -.038 | -.061 | -.092 | -.068 | .139* |
| DASS21 Time 1 | | | | 1 | .720** | .543** | .519** | .473** | .086 | -.072 | .151* |
| DASS21 Time 2 | | | | | 1 | .449** | .525** | .490** | .148* | .035 | .001 |
| LSAS Time 1 | | | | | | 1 | .866** | .827** | .037 | -.049 | .170** |
| LSAS Time 2 | | | | | | | 1 | .878** | .140** | -.080 | .101 |
| LSAS Time 3 | | | | | | | | 1 | .138* | -.045 | .159* |
| Units | | | | | | | | | 1 | .123 | -.033 |
| Peer review | | | | | | | | | | 1 | -.086 |

Notes:
Positive values with respect to group refer to stronger correlations with treatment group and negative correlations reflecting a stronger correlation with the control group
* $p < .05$, ** $p < .01$
a. Participants in the control group completed more unit tests on average than those in the treatment group.
b. Correlation cannot be computed because at least one variable is constant

Table 4

*Repeated Measures Analysis of Variance: LSAS*

| Effect | *MS* | *df* | *F* | *p* | Partial eta squared |
|---|---|---|---|---|---|
| Time | 3476.11 | 1.84 | 49.36 | <.000 | .181 |
| Time x Group | 271.97 | 1 | .212 | .646 | .001 |
| Error | 70.43 | 410.46 | | | |

Table 5

*Repeated Measures Analysis of Variance: DASS21*

| Effect | *MS* | *df* | *F* | *p* | Partial eta squared |
|---|---|---|---|---|---|
| Time | 514.73 | 1 | 20.37 | <.000 | .077 |
| Time x Group | 617.91 | 1 | 4.13 | .043 | .017 |
| Error | 149.52 | 245 | | | |

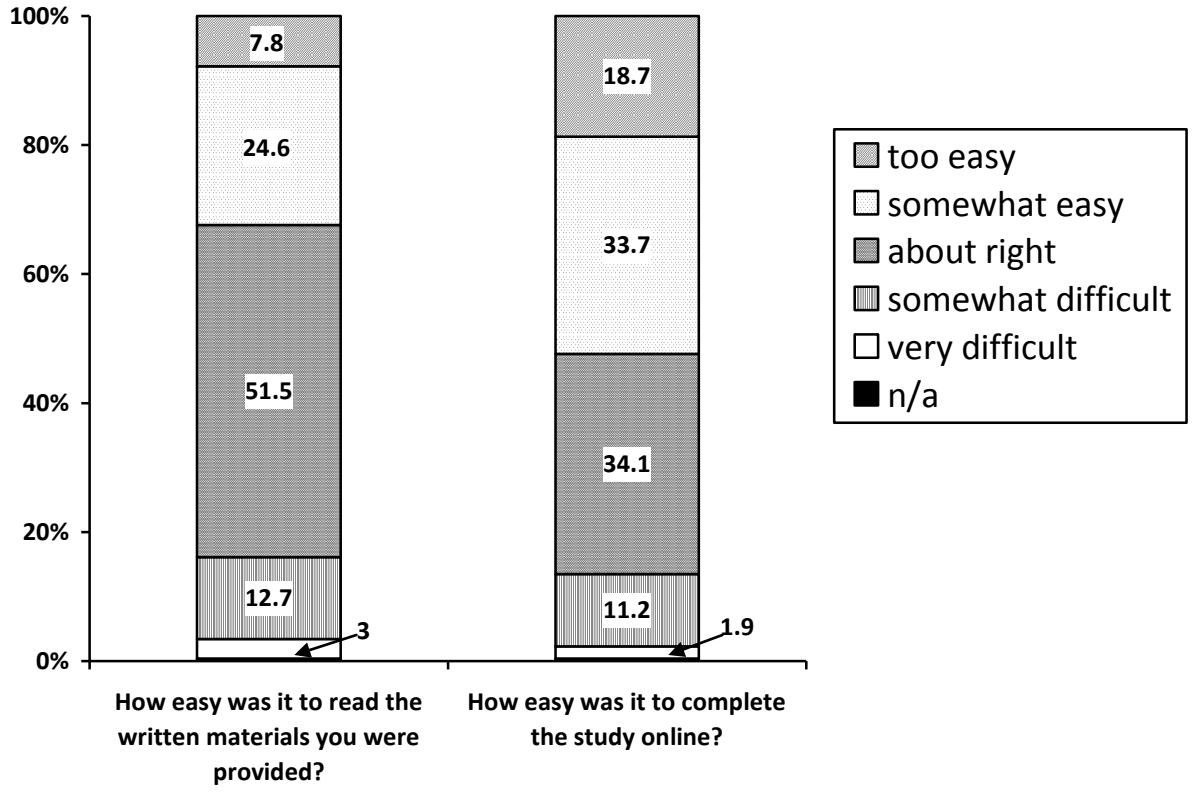


Figure 1: Participants ratings of materials and WebCAPSI program

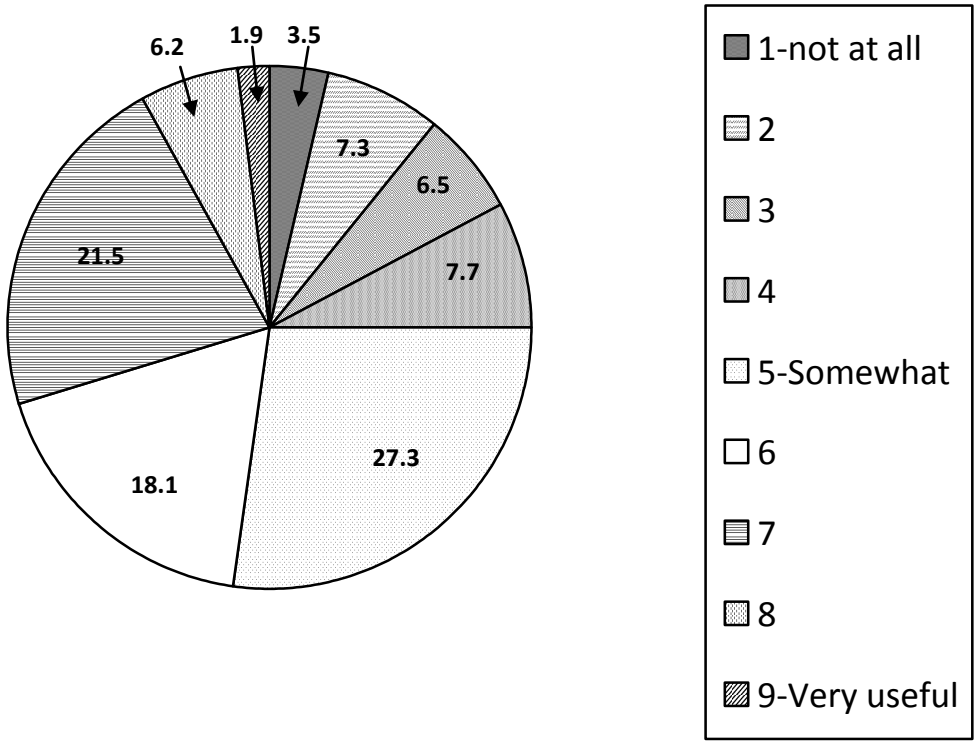


Figure 2: Percent perceived reduction of symptoms

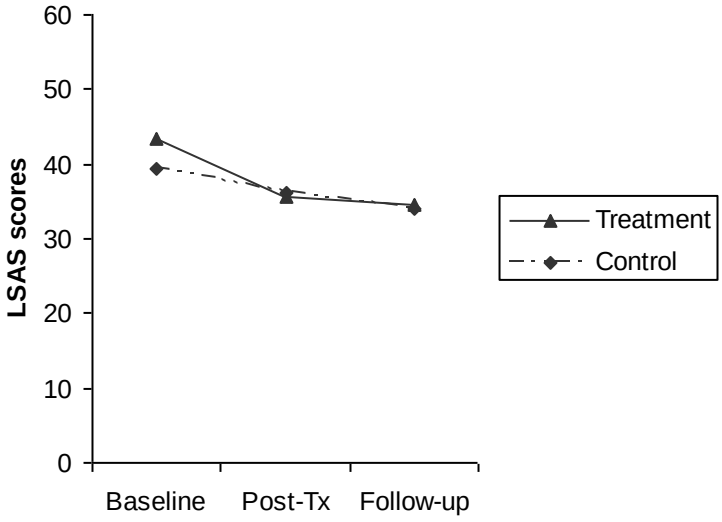


*Figure 3:*Mean scores on LSAS across time

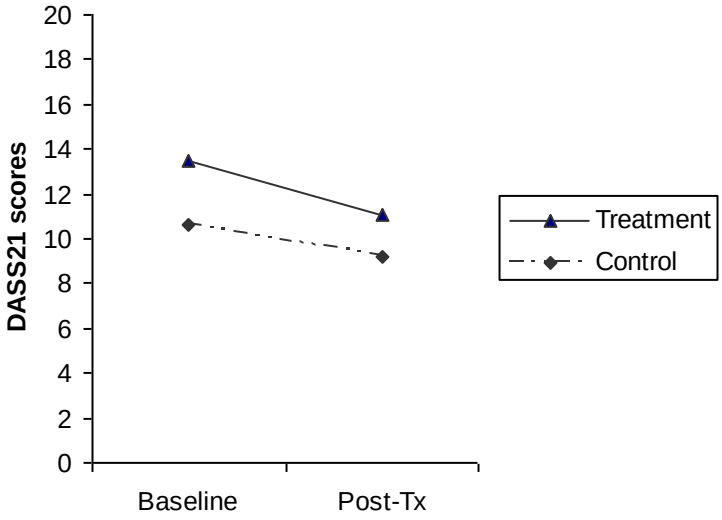


*Figure 4:* Mean scores on DASS21 across time

Appendix A: Consent form

Consent form: A new Web-based educational system for Social Anxiety

Thank you for you interest in our investigation. This study is a part of a Master's thesis being conducted by Heather Simister, a graduate student in Clinical Psychology, under the supervision of Dr. Joseph Pear (Department of Psychology, University of Manitoba). If you would like more detail about something mentioned here, or information not included here, you should feel free to ask the lead investigator (XXXXX) or at 474-XXXX. Dr. Pear can be reached at XXXXXX or at 480-XXXX. Your participation in this study is voluntary, and neither declining to participate nor withdrawing from participation will negatively affect your course or grades. Please take the time to read this carefully and to understand any accompanying information.

If you agree to participate in this study, you will be asked to log in to an online system. All parts of this study will occur online; however, you are still required to complete all parts of the study in order to get full credit. If you agree to participate in this study, you will be randomly assigned to one of two groups. Both groups will receive a series of questionnaires on the first day of the study, one that will ask for demographic information such as your year of study and if you have ever been diagnosed with an anxiety disorder, and two questionnaires that measure your level of anxiety in particular situations. On days 2-4, both groups will receive written information on understanding and coping with anxiety, but one group will answer 2-3 questions each day that are directly related to the material you are reading, while the other group will be asked to rate their anxiety on a daily basis. The written material will be broken into 5 different units to help you read it within the week time frame. To help keep you on track, you will receive e-mail reminders to complete the units everyday. The materials you will read relate to coping with anxiety and are similar to what you would be presented if you saw a therapist. In addition to answering questions, you may be asked to review other people's answers to those same questions and provide feedback on the accuracy of those answers. When reviewing the assignments you will not know who the assignment belongs to, and those reviewing your assignment will not be able to tell that it belongs to you. On the last day of the study, all participants in both groups will be asked to complete the same anxiety questionnaires as you completed today, along with another questionnaire that will ask about your experience with this study. Finally, you will be contacted via the online recruitment system as a reminder to complete one of the anxiety measures a third time 2-3 weeks after you have completed the week-long computer-based intervention. You will complete this measure online, just as you did during the initial study period.

At the end of the experiment, you will be given additional feedback about what you have completed in this study and the specific research questions being asked. Finally, when the study is completed, we will make available the group outcome of the research by posting the results near the Fletcher Argue lecture theatres just prior to the end of the exam period in April, 2010.

We would like to emphasize that all of your responses will be kept completely confidential, with a few limits to that confidentiality. If, in the course of this study, you disclose that you plan to hurt yourself or someone else, the experimenter may be required to contact you and/or other authorities in order to maintain safety. No other person

except for the experimenter will see the responses you make to the questionnaires. All material will be stored in a password-protected, encrypted file format, and printed responses, as well as statistical information (e.g. scores on individual questionnaires) will be kept in a locked office. Information containing personally identifiable information (e.g. ID numbers linked to names) will be destroyed once you have completed the study (at the end of the follow up, approximately April, 2010). Finally we would like to let you know that experiments such as this draw conclusions about people in general not about specific people. This means that when the results of this experiment are reported they will be in summery form and no individual responses will ever be given out.

This experiment will take approximately 5 hours (5 sessions of 60 minutes each) to complete plus one additional 30 minute session 2-3 weeks after the initial study period and you will receive 11 credits for your participation. This consent form is only part of the process of informed consent. It should give you the basic idea of what the research is about and what your participation will involve.

By replying to the researcher at XXXXXX and including your name and date, you are indicating that you agree with this form and that you have understood to your satisfaction the information regarding participation in the research project and agree to participate as a subject. In no way does this waive your legal rights nor release the researchers, sponsors, or involved ins4itutions from their legal and professional responsibilities. You are free to withdraw from this study at any time, and/or refrain from answering any questions you prefer to omit, without prejudice or consequence. Your continued participation should be as informed As your initial consent, so you should feel free to ask for clarification or new information throughout your participation.

_____ _____

(include your FULL name) (Date)

---

This research has been approved by the Psychology/Sociology Research Ethics Board (PSREB) of the University of Manitoba. If you have any concerns or complaints about this project, you may contact the above-named persons or the Human Ethics Secretariat at 474-7122. A copy of this consent form has been given to you to keep for your records and reference.

# Appendix B

## Instructions to Participants

Control Group Instructions:

Welcome to the Noranda study! It will take you one hour per day for one week to complete the Bulk of this study, with a 30 minute follow up on February 28th. Your study ID has been included in the body of tha e-mail sent to you by the researcher. If you forget Your ID, please contact the researcher at XXXXXXX
Monday, you should go to Survey Monkey at https://www.surveymonkey.com/XXXX TO complete the survey. The **password** for the survey is **Noranda1**.
On Tuesday-Thursday, you will be logging in to a web-based teaching system. This system is available at www.webcapsi.com. Log in to the program using your study ID. Your ID and password will be the same unless you choose to change your password. Once you log in, click on "courses" on the top of the page. You will see Noranda1c listed as a course. By clicking on "downloads", you will be able to read and save the materials you will need for this portion of the study. Plan to spend about 15-20 minutes reading per day in order to get through all of the materials by the end of the week. On Tuesday, Wednesday, and Thursday, please complete 1 test each day, which can be accessed via the main course page under "test", and will ask you 3 questions with regards to your level of anxiety, and how you like the system. Further instructions on using the system are included in your reading package.
On Friday you should go to Survey Monkey and complete the remaining questionnaires. You will be emailed the link and password via the participant pool system on Thursday.
The materials that you are about to read are used with permission and were provided to the lead experimenter by Dr. John Walker. Dr. Walker is a Professor in the Department of Clinical Health Psychology at the University of Manitoba and Director of the Anxiety Disorders Program at St. Boniface General Hospital. He is also an adjunct professor in the Departments of Psychology and Community Health Sciences. In the clinical area, Dr. Walker supervises senior clinical psychology students in their training in research and treatment in the anxiety disorders area and provides individual and group treatment services himself. He is coauthor of *Triumph Over Shyness*, a self-help book for shyness and social anxiety and a book for practitioners titled *Treating Health Anxiety and Fear of Death*. Dr. Walker has a special interest in self-help approaches to treatment of anxiety disorders and has completed treatment evaluation studies demonstrating the benefits of self-help materials with panic disorder and social phobia. He was a founding board member of the Anxiety Disorders Association of Manitoba and has worked with them to develop self-help programs that provide assistance to individuals with anxiety disorders in a large region around Winnipeg. He is a well known and respected researcher in epidemiology and risk factors for anxiety disorders and major depression, cognitive-behavioral treatment of anxiety disorders in adults and children, coping with illness, and programs focused on health promotion and prevention. (Reference: Stein, M.B., & Walker, J.R. (2009) *Triumph over shyness: Conquering shyness and social anxiety* (2nd Edition). Silver Spring, MD: Anxiety Disorders Association of America.)

Treatment group instructions:

Welcome to the Noranda study! It will take you one hour per day for one week to complete the bulk of this study, with a 30 minute follow up on February 28th.

Your study ID has been included in the body of the e-mail sent to you by the researcher. If you forget your ID, please contact the researcher at XXXXXXXX

On Monday, you should go to Survey Monkey at: https://www.surveymonkey.com/s/XXXXX to complete the survey. The **password** for the survey is **Noranda1**.

On Tuesday-Thursday, you will be logging in to a web-based teaching system. This system is available at www.webcapsi.com. Log in to the program using your study ID. Your ID and password will be the same unless you choose to change your password. Once you log in, click on "courses" on the top of the page. You will see Noranda1a listed as a course. By clicking on "downloads", you will be able to read and save the materials you will need for this portion of the study. The materials are broken down for you into separate days to help you manage your time and get through the material. Once you have read the day's material, go back to the main page and click "test". The CAPSI system will then generate a test for you with questions from that day's material. Further instructions on using the system are included in your Tuesday reading package. Once you have passed a unit test, you may be given the opportunity to review other participant answers. You will not be able to see who the other participants are, nor can they see who you are. Another feature of the CAPSI system is that it can e-mail you to let you know that you have passed a unit test, or have a test waiting to peer-review. If you would like to get e-mail notification, please enter a valid e-mail address by clicking on "email address" on the top of the main page.

On Friday you should go to Survey Monkey and complete remaining survey. The link and password to the survey will be sent via the participant pool system on Thursday.

The materials that you are about to read are used with permission and were provided to the lead experimenter by Dr. John Walker. Dr. Walker, is a Professor in the Department of Clinical Health Psychology at the University of Manitoba and Director of the Anxiety Disorders Program at St. Boniface General Hospital. He is also an adjunct professor in the Departments of Psychology and Community Health Sciences. In the clinical area, Dr. Walker supervises senior clinical psychology students in their training in research and treatment in the anxiety disorders area and provides individual and group treatment services himself. He is coauthor of *Triumph Over Shyness*, a self-help book for shyness and social anxiety and a book for practitioners titled *Treating Health Anxiety and Fear of Death*. Dr. Walker has a special interest in self-help approaches to treatment of anxiety disorders and has completed treatment evaluation studies demonstrating the benefits of self-help materials with panic disorder and social phobia. He was a founding board member of the Anxiety Disorders Association of Manitoba and has worked with them to develop self-help programs that provide assistance to individuals with anxiety disorders in a large region around Winnipeg. He is a well known and respected researcher in epidemiology and risk factors for anxiety disorders and major depression, cognitive-behavioral treatment of anxiety disorders in adults and children, coping with illness, and programs focused on health promotion and prevention. (Reference: Stein, M.B., & Walker, J.R. (2009) *Triumph over shyness: Conquering shyness and social anxiety* (2nd Edition). Silver Spring, MD: Anxiety Disorders Association of America.)

# Appendix C

## Demographic questionnaire

Please fill out the following information:

1. Study ID number:_____
2. Year in Program: 1 2 3 4 Pre-MA
3. Age: _____
4. Are you currently or have you previously be in treatment for an anxiety disorder?
   YES NO
5. Have you ever been diagnosed by a physician, psychologist, or psychiatrist with Social Phobia?
   YES NO PREFER NOT TO ANSWER
6. Are you currently taking prescription medication for an anxiety or mood disorder?
   YES NO PREFER NOT TO ANSWER
7. Are you currently self-medicating with alcohol, recreational drugs, or over-the-counter medication (e.g. cold remedies, Gravol, sleep aids) to help reduce your anxiety?
   YES NO PREFER NOT TO ANSWER
8. Are you currently, or have you in the past year thought of hurting yourself?
   YES NO PREFER NOT TO ANSWER
9. Do you have any difficulty reading materials presented in English?
   YES NO

Appendix D

Feedback Questionnaire

1. Study ID:_____

All ratings are from 1 (low) to 5(high)

2. How easy was it to read the written materials you were given? _____
   Comments:
   _____
   _____
   _____
3. How easy was it to complete the study online? _____
   Comments:
   _____
   _____
   _____
4. Did you find the materials useful? _____
   Comments:
   _____
   _____
   _____
5. Would you recommend this treatment to a friend ? _____
   Comments:
   _____
   _____
   _____
6. Did you find the peer-review to be helpful? _____
   Comments:
   _____
   _____
   _____
7. Other comments?

   Comments:
   _____
   _____
   _____

# Appendix E

## DASS21

Please read each statement and select a response that best indicates how much the statement applied to you over the past week. There are no right or wrong answers. Do not spend too much time on any statement.

| | Did not apply to me at all | Applied to me to some degree, or some of the time | Applied to me to a considerable degree, or a good part of the time | Applied to me very much or most of the time |
|---|---|---|---|---|
| 1. I found it hard to wind down | | | | |
| 2. I was aware of dryness in my mouth | | | | |
| 3. I couldn't seem to experience any positive feelings at all | | | | |
| 4. I experienced breathing difficulty (e.g. excessively rapid breathing, breathlessness in the absence of physical exertion) | | | | |
| 5. I found it difficult to work up the initiative to do things | | | | |
| 6. I tended to over-react to situations | | | | |
| 7. I experienced trembling (e.g. in the hands) | | | | |
| 8. I felt I was using a lot of nervous energy | | | | |
| 9. I was worried about situations in which I might panic and make a fool of myself | | | | |
| 10. I felt that I had nothing to look forward to | | | | |
| 11. I found myself getting agitated | | | | |
| 12. I found it difficult to relax | | | | |
| 13. I felt down-heated and blue | | | | |
| 14. I was intolerant of anything that kept me from getting on with what I was doing | | | | |
| 15. I felt close to panic | | | | |
| 16. I was unable to become enthusiastic about anything | | | | |

17. I felt I wasn't worth much as a person

18. I felt that I was rather touchy

19. I was aware of the action of my heart in the absence of physical exertion (e.g. sense of heart rate, heart missing a beat

20. I felt scared without good reason

21. I felt life was meaningless

Appendix F

## Liebowitz Social Anxiety Scale

**(Liebowitz MR. Social Phobia. Mod Probl Pharmacopsychiatry 1987;22:141-173)**

ID #:

This measure assesses the way that social phobia plays a role in your life across a variety of situations. Read each situation carefully and answer two questions about that situation. This first asks how anxious or fearful you feel in a situation. The second question asks how often you avoid the situation. If you come across a situation that you ordinarily do not experience, we ask that you imagine "what if you were faced with that situation," and then, rate the degree to which you would fear this hypothetical situation and how often you would tend to avoid it. Please base your ratings on **the way that the situations have affected you in the last week.** *Fill out the following scale with most suitable answer provided below:*

| Fear or Anxiety: | Avoidance: |
|---|---|
| 0 = None | 0 = Never (0%) |
| 1 = Mild | 1 = Occasionally (1—33%) |
| 2 = Moderate | 2 = Often (33—67%) |
| 3 = Severe | 3 = Usually (67—100%) |

| | Fear | Avoidance |
|---|---|---|
| 1. Telephoning in public. (P) | | |
| 2. Participating in small groups. (P) | | |
| 3. Eating in public places (P) | | |
| 4. Drinking with others in public places (P) | | |
| 5. Talking to people in authority (S) | | |
| 6. Acting, performing or giving a talk in front of an audience (P) | | |
| 7. Going to a party (S) | | |
| 8. Working while being observed (P) | | |
| 9. Writing while being observed (P0 | | |
| 10. Calling someone you don't know very well (S) | | |
| 11. Talking with people you don't know very well (S) | | |
| 12. Meeting strangers (S) | | |
| 13. Urinating in a public bathroom (P) | | |
| 14. Entering a room when others are already seated (P) | | |
| 15. Being the centre of attention (S) | | |
| 16. Speaking up at a meeting (P) | | |
| 17. Taking a test (P) | | |
| 18. Expressing a disagreement or disapproval to people you don't know very well (S) | | |
| 19. Looking at people you don't know very well in the eyes (S) | | |
| 20. Giving a report to a group (P) | | |
| 21. Trying to pick up someone (P) | | |
| 22. Returning goods to a store (S) | | |
| 23. Going to a party (s) | | |
| 24. Resisting a high pressure salesperson (S) | | |

# Appendix G

## Credibility/Expectancy Questionnaire

1. At this point, how logical does the therapy offered to you seem?
   Not at all logical Somewhat logical Very logical
   1---------2----------3--------4--------5--------6---------7--------8--------9

2. At this point, how successfully do you think this treatment will be in reducing your symptoms (or symptoms of someone who has anxiety)?
   Not at all Somewhat useful Very useful
   1---------2----------3--------4--------5--------6---------7--------8--------9

3. How confident would you be in recommending this treatment to a friend who had social anxiety?
   Not at all confident Somewhat confident Very confident
   1---------2----------3--------4--------5--------6---------7--------8--------9

4. By the end of the study period, how much improvement in you symptoms do you think will occur?
   0%---10%---20%---30%---40%---50%----60%---70%---80%---90%----100%

5. At this point, how much do you really feel that therapy will help you to reduce your symptoms?
   Not at all Somewhat Very much
   1---------2----------3--------4--------5--------6---------7--------8--------9

6. By the end of the study period, how much improvement in your symptoms do you really feel will occur?
   0%---10%---20%---30%---40%----50%----60%---70%---80%---90%---100%

Appendix H

Unit materials: Control group

Instructions for using the WebCAPSI system

*Excepts taken from Pear (2010) General Manual for Courses using CAPSI (Computer Aided Personalized System of Instruction). Used with permission

For this study, you will need to access two online websites: Survey Monkey and WebCAPSI. The WebCAPSI program is used to teach undergraduate and graduate courses at a number of different universities, including the University of Manitoba. For this study, you will be assigned a specific username and password to access the system. You will be able to change your password on the system after logging in for the first time.

If you are currently or have previously been registered in WebCAPSI-taught courses, you WILL NOT be able to use the same username and password as you use to access your courses, but must use the username e-mailed to you from the researcher. This will help maintain confidentiality and keep your answers to this study distinct from any course work.

For the purpose of this study, the terms "researcher" and "instructor" will be used interchangeably.

**Accessing the CAPSI Program**

You may access the CAPSI program from any location (home, workplace,campus, etc.) with a personal computer that is connected to the Internet and that has an appropriate Web browser. (The display and other functions of the program work best on Microsoft Internet Explorer.) To access the program load your Web browser, click the address bar, type http://www.webcapsi.com into the address bar, and then push the enter key. The screen you will see is shown in Figure 1. Note There is no need to access the link to Undergraduate Course Information as it will not be relevant to this study.

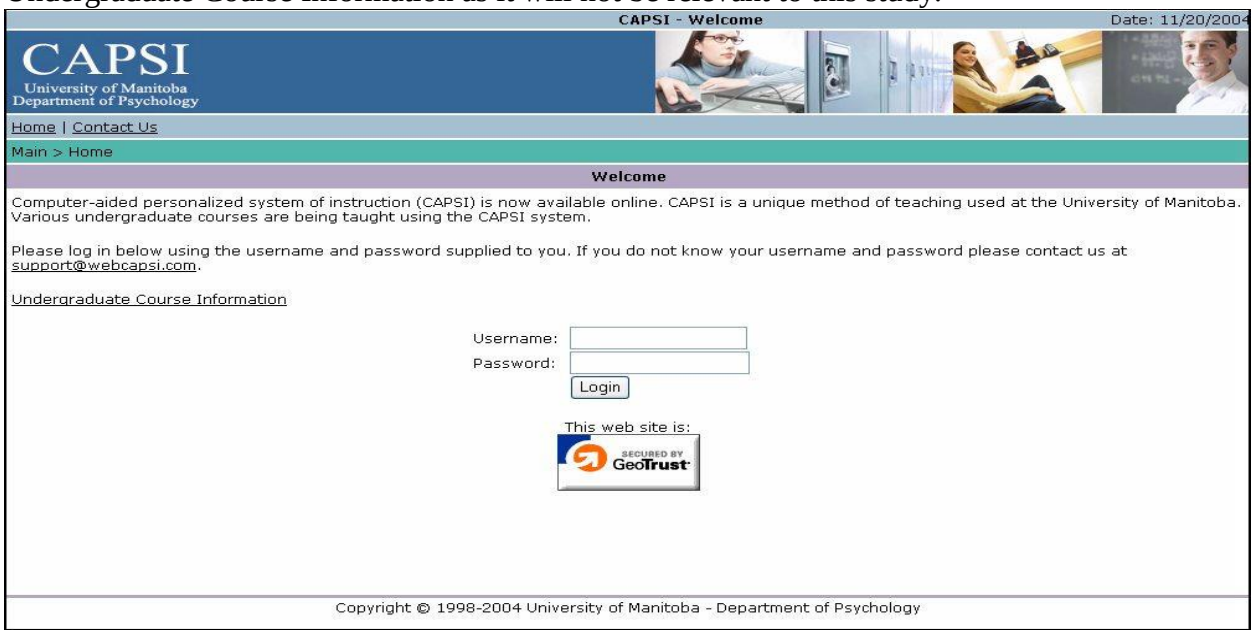


Figure 1. The login screen for the CAPSI program

1. Visit the course Website to find helpful and important information about your course. To do this, click the line that says "Undergraduate Course Information."
2. Login to the CAPSI program. To do this, click the Username box and begin by entering the username you were sent by the researcher. Then click the Password box and enter your password *If at this point, the computer responds: "Invalid Login", try again. If this response occurs again, it simply means that the instructor has not yet entered your username into the program. Press the escape key to get out of the program and log off the computer. Contact the researcher who will take care of the problem as soon as possible.*
3. If you have difficulty accessing the system at any point, please contact the researcher at XXXX@cc.umanitoba.ca.

For University of Manitoba students who want to access CAPSI from campus, you can do this from any Windows computer connected to the University of Manitoba Computer Network.

Computer labs suitable for CAPSI access include (but are not limited to):

- 237 Agriculture
- 121 Architecture
- 8 Dafoe (off tunnel near Greenhouse Cafe)
- 334 Education
- 229A Engineering 2
- 107 Fitzgerald
- 182 Frank Kennedy (Continuing Education Complex)
- 107 Human Ecology
- 108, 111, 112, 115 Machray
- 121 St. John's College
- 131 St. Paul's College
- 233 University College

After choosing an open computing area with free workstations, find an unused computer and make sure it is turned on. Then follow these steps:
1. If you do not have an INS account, enter "claimed" in the login box to obtain one.
2. Login to your INS account.
3. When the computer is displaying the Windows desktop, find either the Internet Explorer or Firefox icon. Double click this.
4. When it has loaded, follow the same procedure you would from any other location (see above).

# Using the CAPSI Program

## Main Menu Commands

When the Researcher has entered your username into the program (after you provide consent) and you follow the above procedure, you will see a menu bar at the top of your "home" screen. (We'll call this the "main menu".) You may select any of the items in the main menu (which are fairly self-explanatory) by simply clicking the chosen item. Do not be afraid to experiment with this just to see what will happen.

## Changing Your Password

One of the choices in the main menu is "Change Password." This choice permits you to change your password, which you should do as soon as possible. Your password may be any combination of letters and digits, up to eight characters. No one but you should know your password because an unscrupulous person could use it to get into your account. That person might then find out confidential information about your performance in the study or do any of the functions below (e.g., send out messages, write unit tests, peer review unit tests) in your name, leaving you responsible for any problems he or she may have caused. To change your password, select Change Password from the main menu. A box will appear asking for your current password (see Figure 2).

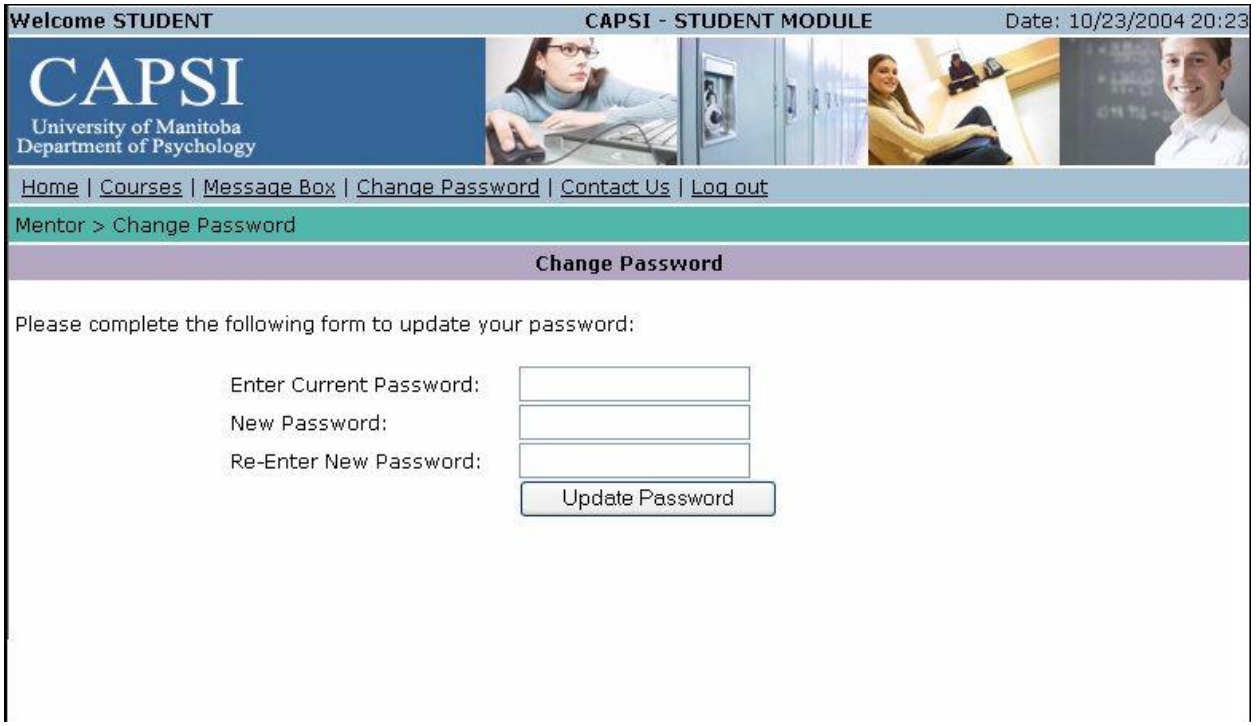


Figure 2. The screen for changing your password.

Type in your current password, new password, and then re-enter your new password in the appropriate fields. Then click "Update Password". Passwords may have numbers, letters, and other characters such as punctuation marks, and it is a good idea to use a combination of these. You may use a mixture of upper and lowercase characters.

**Exiting the Program**

Note that one of the choices in the main menu is "Logout". **NOTE:** *You should always choose "Logout" before exiting the program.* This is especially important if you are logged in at a computer in a public place (e.g., a university computer lab), because the next person who sits down at that computer may access your account.

It is also important, as the program may have important information to give you before you logout; for example, a message from the instructor may have just arrived in your message box (see below).

**Communication with the Researcher through the CAPSI Messaging System**

You can elect to contact the researcher using the CAPSI system; however, the researcher will only contact you via the online recruitment system or the e-mail address you have included in your online recruitment profile.

To send a message to the researcher, click on the Message Box link at the top of the Main screen. You can compose a message to the researcher by selecting "Simister" when prompted to select user in the "To:" field.

**Course Functions**

Participants will use the CAPSI program to check their current progress in the study, peer review unit tests **in courses in which peer reviewing is an option**, download study written material, write unit tests, and view marked unit tests. Select "Courses" from the main menu to perform course functions (the command is plural because you may be enrolled in more than one CAPSI course). You will see your course number (which will be the study name, Noranda), , and which section you are enrolled in. You will also see some choices across from each course listing. To make these choices, click the appropriate box.

**Peer Reviewing**

In CAPSI courses **in which there is a peer-review option**, a component of your participation is based on your peer reviewing unit tests written by other students (your peers) taking the same course you are taking. Because how you write a unit test depends largely on how it is going to be marked or reviewed, the procedure for peer reviewing unit tests is described before the procedure for writing unit tests.

**Setting Your Availability**

All participants will be marked as available to peer-review. You should try to check the system 1-2 times a day to see if you have tests to peer-review. If, for some reason you do not wish to peer-review, you can change your availability to "No" next to where it says "Able to Peer Review". In order to receive full credit in this study, you must be available to peer-review for the duration of the study. The number of times you peer-review will not impact your credits in this study.

**Checking for Unit Tests and Viewing Answers**

If you signed on to be a peer reviewer in courses in which this option is available, you should check for a unit test to peer review at least once during the time 24-hour limit for marking unit tests. You can check for unit tests by clicking the "Review" button. By default, you will be brought to a screen that lists unit tests that

you previously reviewed as well as current unit tests submitted to you to review. To restrict this view either just to current or just to previous unit tests, click the dropdown box at the far right of the screen and then select either "Current" or "Previous." If a unit test has been assigned to you to review, you will see the date and time it was submitted. To see the questions, click "Mark Test". A screen will appear showing the questions. Select a question and click the "Comment" button next to it to view the full question and the student's answer. There is also a window for entering your comments on the student's answer.

**How to Peer Review**

The comments made on individual answers and on the unit test as a whole must be respectful, constructive, and non-punitive. All answers must be complete and correct before a pass result can be given. If the answer to a question is complete and correct, enter a comment and click the box next to "Displays Mastery." A small checkmark will appear in the box. If the question is incorrect or incomplete in some way, do NOT click the "Displays Mastery" button (leave it unchecked). To save the comments that you have typed for a particular answer, and the status in terms of mastery displayed or not, click the "Save Comment" button. This will take you back to the previous screen showing the list of questions on the unit test. You review each question in this way until you have reviewed them all.

To enter a result for the unit test as a whole, scroll down the screen that shows the list of questions. There is a comment box that allows you to enter an overall comment for the unit test. Enter your comments here. Then click the drop-down box next to "Mark". Choose either "Pass" (if "Displays Mastery" is checked for all answers) or "Restudy" (if any answer is marked "No" to "Displays Mastery"). When you are done these steps, click the "Submit Mark" button at the bottom of this screen. If any answer is incorrect, the unit test must be given a restudy. When assigning a restudy, please be explicit about which answers did not display sufficient mastery, and suggest how the answer(s) should be changed in order to demonstrate mastery. When assigning a pass result, let the student know about anything that he or she did particularly well.

You may view any unit test that you have marked by clicking the "Review" button, and then selecting "Previous" on the drop-down box in the top right of the screen. This screen will also show you the submission date and time of any unit tests that you were late in reviewing. Thus, if you have been penalized points for late reviewing, you may check this screen to find out why.

**Writing Unit Tests**

To write a unit test on your current unit, click the "Test" button for the course. A box will appear advising you that there is a time limit for the unit test and will ask you to confirm that you want to start the unit test now. **Remember***: when writing a unit test you have a one-hour time limit in which to submit the unit test and receive credit.* You may check the amount of time remaining by clicking the line that says: "Click here to view current time" on the initial screen listing the unit test questions

(which you will return to each time you finish answering an individual question). When you get the unit test, you will see the first part of the selected questions on the screen (see Figure 7). You may answer the questions in any order by clicking the "Answer" button next to the question. After you select a question, you will see a window in which to type your answer (see Figure 8)

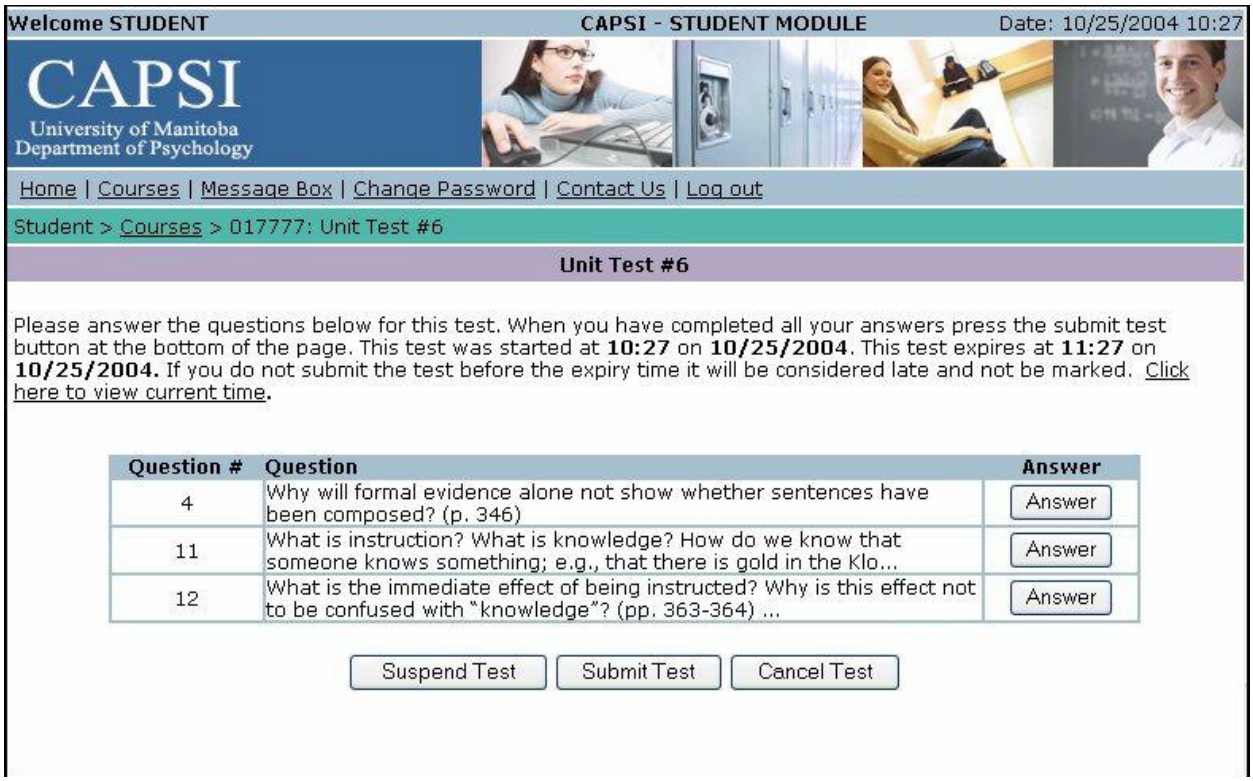


Figure 7: An example screen showing a unit test that has been received.

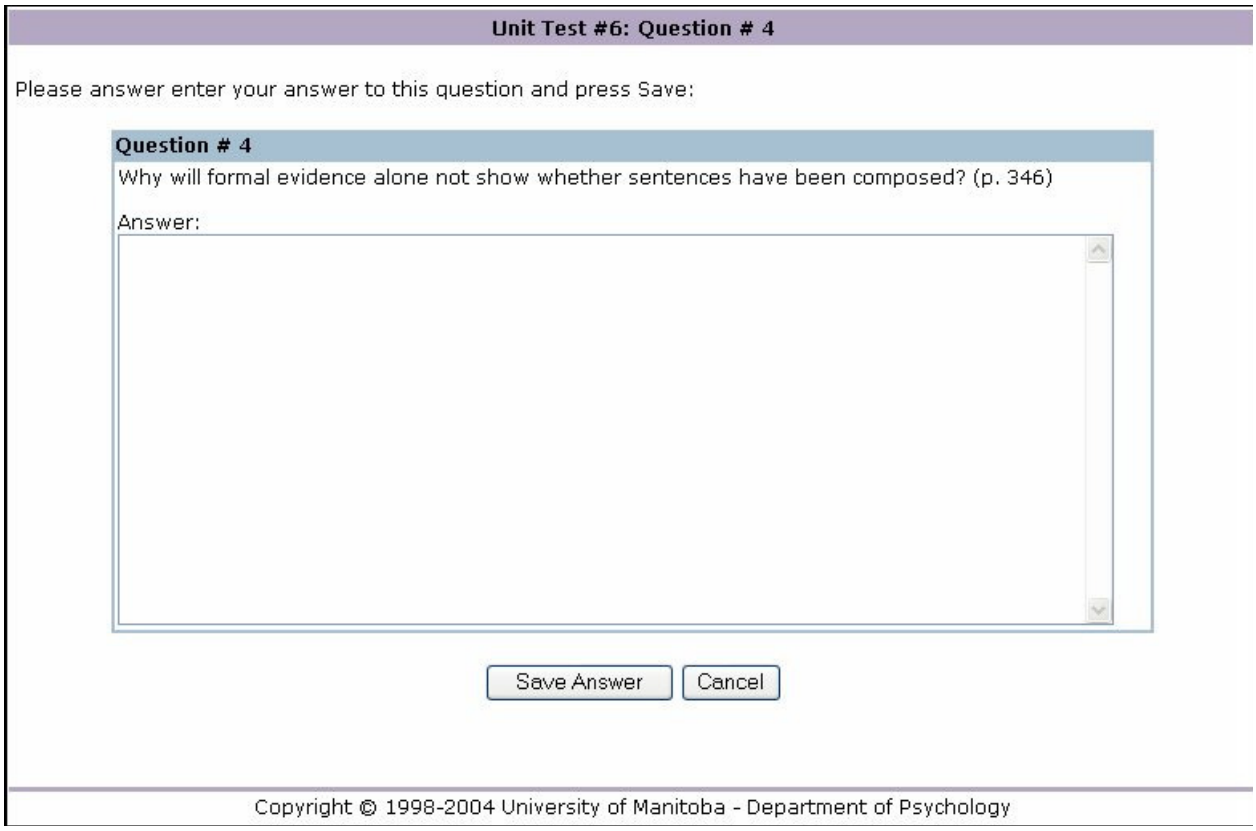


Figure 8: An answer box for a unit test question has been opened.

When you are finished typing your answer, click the "Save Answer" button at the bottom of the screen. After you have answered all the questions and have saved all of them, click the "Submit Test" button to submit the unit test. Alternatively, you can click "Cancel Test" or "Suspend Test". Cancelling a unit test should be done if you discover that you were not adequately prepared for the unit test. It is the same as giving yourself a "Restudy," and you will not be able to write a new unit test on the unit until at least one hour restudy time has elapsed. Suspending your unit test should be done only in an emergency situation. This option will not re-set the timer, but it will allow you to save your unit test and re-start it after the emergency is over. If the unit test is submitted after the deadline, your instructor will have the option of marking or not marking it, depending on the nature of the emergency.

**Writing Exams**

There are no exams in this study.

**Viewing a Marked Unit Test that You Wrote**

To view a unit test or exam you have written after it has been marked, click the "Marks" button on the course menu. You will then be able to see if you passed the unit test and the comments the reviewer(s) made on it.

The materials that you are about to read are excerpts from Triumph Over Shyness, Conquering Shyness and Social Anxiety (2010), used with permission and were provided to the lead experimenter by Dr. John Walker.

Understanding why Anxiety persists and what to do about it

Old habits, particularly old ways of thinking, die hard. While understanding where these habits and thinking patterns come from can be helpful, mere understanding isn't enough. Nor is it always necessary --sometimes we just can't figure it out. And blaming people–parents, teachers, siblings, or peers–for how we've turned out will not lead to change in ourselves. In order to tackle social anxiety, you need to learn new ways of relating to people, new ways of behaving around others, and new ways of thinking about social situations. And once you've learned these things, you need to practice them again and again. The rest of the units in this program will provide you with some skills to help overcome social anxiety.

**What kinds of treatment are there for Social Anxiety?**

Talk Therapies

These approaches involve a client and therapist working together. There is (or at least there should be) a solid theoretical basis for how the talk will lead to improvement in the condition(s) being addressed. The therapist's role is usually to facilitate change in the client's way of thinking, feeling, behaving, or approaching the problem. What goes on during therapy can vary markedly depending on the kind of therapy, and often on the style or personality of the therapist.

Cognitive-Behavioral Therapy

The form of psychological treatment that has the widest scientific support in treatment of anxiety disorders is called cognitive-behavioral therapy (CBT). CBT focuses on understanding and changing thinking patterns (cognition) and behavior patterns that are involved in anxiety problems. When you change your thinking and behavior, emotional changes often follow. This approach to dealing with common problems including pain, anxiety and phobias, depression, relationship problems, and substance abuse has been evolving over the last 40 years. In CBT, approaches are developed to address specific problems; in fact, different forms of CBT have been developed for each anxiety disorder, including social anxiety. CBT for social anxiety requires the therapist to assess the client's problem, educate the client about the problem, and work with the client to develop strategies that will help overcome anxious thoughts, physical symptoms, and anxious behaviors. This is the type of treatment you will come across during this program.

**Other Forms of Therapy**

While hypnosis is sometimes used to treat anxiety and phobias, we are not aware of any studies that show it works for social anxiety.

Biofeedback is another form of therapy sometimes suggested for treatment of anxiety and phobias. Biofeedback involves the use of monitoring devices to give persons information about their physiological functioning.

**Medication**

Medication can help reduce social anxiety and severe shyness. Some drugs are useful only for performance anxiety (public speaking, or playing a musical instrument in

front of an audience) whereas others are more useful for treating generalized social anxiety (the kind that occurs in a broad array of social situations, often those involving interactions with others). Medication is often used in conjunction with psychological treatments, and is rarely a stand-alone long-term solution to coping with social anxiety.

**Four Steps to Overcoming Social Anxiety**

You need to do four things to overcome your social anxiety:

1. Understand your anxiety pattern
2. Change how you handle your thoughts in anxiety-provoking situations
3. Change your anxious behaviors.
4. Accept anxious thoughts and feelings as you move toward your goals in life.

If you make a commitment to follow these four steps, you will dramatically reduce your social anxiety. For any kind of program to be successful – whether it's self-help, individual therapy, or group therapy – you must make it a priority. The first step is to read through the program quickly (you don't have to do the exercises the first time through) and decide if you are willing to commit to it. If you are, the next step is to follow through and spend time on the program every day for two or three months. This is a significant commitment and may require that you cut down on other activities, at least temporarily.

**Understand your pattern of social anxiety**

Anxiety is a normal human emotion, the emotion that motivates humans (and animals for that matter) to keep themselves safe. One aspect of the protective anxiety system is the *fight or flight response*. When we encounter a danger signal, the body automatically prepares for self-preservation: We prepare ourselves to either defend against an attacker (*fight*) or to flee (*flight*). A related part of this protective system is to *freeze* in a dangerous situation so as not to attract attention. Many of us have seen a rabbit or a deer freeze when it becomes aware that there are humans - potential predators - around. In a stressful social situation some people find themselves freezing, unable to say or do anything.

While the anxiety response involves many bodily systems acting in a coordinated fashion, it is helpful to consider separate aspects of the response. In the pages that follow we will consider three systems involved in the anxiety response: anxious physical reactions, anxious thoughts, and anxious behaviors.

**Anxious physical reactions and anxious thoughts**

You often first become aware of anxiety by noticing your physical reactions. You may notice your heart racing or your face flushing. The level of activity in your stomach and the rest of your gastrointestinal (GI) system may increase, creating discomfort in your stomach or a feeling that you need to have a bowel movement. You may perspire excessively. As your level of bodily arousal increases, you become especially watchful for signs of danger or threat. You may feel that your body is betraying you and making it more difficult to cope with anxiety. People who experience social anxiety may be especially concerned about symptoms that others may notice: blushing, excessive perspiration, shaky hands, or a noisy stomach. Anxious thoughts: A powerful influence on emotions and behaviors.

In addition to the uncomfortable physical symptoms, a major aspect of anxiety is what we *think* about a situation. When you perceive a social situation as difficult, threatening, or anxiety provoking, this assessment will color not only your experience during the interaction, but your perceptions of it *before* and *after* the event, as well.

*Before a situation*: Your thinking may be marked by anticipatory anxiety – anxiety before the situation actually occurs – about what will happen and doubts about whether you will be able to handle it. You may visualize the situation turning out badly and imagine you will feel embarrassed or humiliated. These worries are often intrusive; that is, they come to you when you are trying to think about something else.
*During a situation:* The anxiety may peak as the interaction starts, or it may build gradually. Concentration may be difficult; rather than focus on what other people are saying, you may focus on your anxious thoughts and physical reactions.
*After a situation:* You are usually relieved to be finished, and the level of physical symptoms often decreases. After the initial relief, though, thoughts turn to how you handled the encounter. When you are having difficulty with anxiety, your evaluation of your performance is often negative.

**Anxious behaviors: Coping strategies that may do more harm than good**

Certain behaviors are emblematic of social anxiety, two of the most common being *avoidance behavior* and *escape behavior*.

*Avoidance behavior* manifests itself when you try to stay away from situations that make you anxious. Avoidance behavior is a useful strategy when it keeps you out of dangerous situations like a midnight stroll in Assiniboine Park with dollar bills taped to your jacket. But when your perception of which situations are dangerous and should be avoided includes social gatherings, educational sessions, and business meetings, this is no longer an adaptive strategy. It is at this point that avoidance dominates your life. Avoidance also prevents you from learning ways to challenge social anxiety and overcome the problem.

Another common anxiety symptom is *escape behavior*. Escape behavior involves leaving an anxiety-arousing situation. If you have trouble conversing with certain types of people, you might escape by having a few words and then giving an excuse about needing to leave to finish something. If parties make you anxious, you might escape by pretending to have a family emergency and leaving the party ten minutes after you arrive. People also engage in *safety behaviors* intended to help them more comfortable in challenging social situations. Examples of safety behaviours include taking a friend with you to an appointment, or checking over and over again to ensure that your presentation is in your backpack.

In difficult social situations, how much are you distressed by the following anxious thoughts?

| | Not at all | A little bit | Moderately | Quite a bit | Extremely |
|---|---|---|---|---|---|
| I won't know what to say | | | | | |
| My mind will go blank | | | | | |
| I'll stumble over my Words | | | | | |
| I will make a mistake when I speak | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| I will be physically Awkward | | | | | |
| I will do something to embarrass myself | | | | | |
| People will see that I'm nervous | | | | | |
| People will watch me or stare at me | | | | | |
| People will have a negative impression of me | | | | | |
| My nervousness will make people uncomfortable | | | | | |
| People won't want to be around me | | | | | |
| People won't like the way I look | | | | | |
| People will think I'm Foolish | | | | | |
| People will think I'm too Quiet | | | | | |
| People will think I'm Boring | | | | | |
| People will laugh at me | | | | | |
| People won't like me | | | | | |
| Other: | | | | | |
| Other: | | | | | |

## How much do you avoid the following social situations?

| | Never | Seldom | Sometimes | Often | Always |
|---|---|---|---|---|---|
| Making eye contact with someone I don't know well | | | | | |
| Speaking before a large group of people | | | | | |
| Speaking before a small group of people | | | | | |
| Being the center of attention | | | | | |
| Attending social gatherings in general | | | | | |
| Going to a party | | | | | |
| Eating in public | | | | | |
| Speaking to people in authority (supervisor,teacher) | | | | | |
| Speaking with someone I'm attracted to | | | | | |
| Returning items to a store | | | | | |
| Writing in front of other people | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| Asking a question in a class or at a meeting | | | | | |
| Inviting a family member to visit my home | | | | | |
| Inviting a non-family member to visit my home | | | | | |
| Calling someone I know well on the phone | | | | | |
| Calling someone I don't know well on the phone | | | | | |
| Asking someone for Information | | | | | |
| Disagreeing with Someone | | | | | |
| Other: | | | | | |
| Other: | | | | | |
| Other: | | | | | |

**Accepting anxious thoughts and feelings**

Since anxiety is an uncomfortable and even painful emotion, some people have the impression that the best life would be a life with no anxiety. A more realistic view is that emotions such as anxiety, sadness, happiness, pleasure and anger are essential in providing direction in people's lives. Anxiety – in moderation – is normal, healthy, and can help motivate people to make choices and meet goals. Setting goals will keep you motivated to overcome anxiety. In approaching this task, it is important to put your fears aside and imagine a life unhampered by fear. You can worry later about how you will reach your goals and dreams, but for now, focus on deciding what they are.

As you choose goals, be as *specific* and *concrete* as possible. We have listed strong examples and weak examples to guide you. Include some goals that involve overcoming anxiety in challenging social situations. Do not restrict yourself, however, to these goals, as this would give an unbalanced view of what you hope to achieve.

- Long-term goals

  **Strong example.** *"Take a winter vacation in the Bahamas once every two years."* This is a strong example because it is specific and concrete: you can tell exactly what you want to do and you'll know when you have done it.

  **Weak example.** *"Be happy and never feel anxiety again."*
  This is a weak example for two reasons. First, it is not specific and concrete - how can you tell when you've actually achieved it? What do you have to do to be happy? Second, anxiety is a normal, healthy part of life that everyone experiences at one time or another. It is not reasonable to expect to live completely free of anxiety. On the other hand, it is realistic to live a life in which anxiety is a minor factor.

- **Medium-term goals**

  These are goals you can imagine accomplishing *in the next year*. They may be steps on the way to your long-term goals. They may be activities you have avoided because of excessive shyness or anxiety. Once again, be very specific and concrete.

**Strong example.** *"Start a course in medical terminology at Wilson College in the spring."*
This is a strong example because it is specific and concrete – it states what you want to study and where you plan to study it – and may move you toward your long-term goal of an interesting career. The wording of the goal describes what you will have to do to attain it and makes it easy to tell when you have achieved it.

**Weak example.** *"Go back to school."*
This is a weak example because it is not specific enough. What school do you mean? What course do you want to take? When are you planning to do it? We often don't get around to working on vague goals.

- **Short-term goals**

  These are goals you can work on *in the next three months***.** You may want to take one of your medium-term goals and break it down so that you can start to work on parts of it right away. Think of at least eight short-term goals you can start in the next three months. Be sure to set goals that will move you closer to your medium-term goals. Make your short-term goals specific and practical.

  **Strong examples.**

  *"Take a tai-chi class at the community center next month."*

  *"Eat lunch at Bistro Gardens with Steve."*
  *"Ask a question at the staff meeting at work."*
  These are strong examples because they are manageable enough to work on soon and specific enough so you know what you should be doing and when you have done it.

  **Weak examples.**

  *"Get some exercise."*

  *"Go to a restaurant."*

  *"Speak up more and not feel nervous."*
  These are weak examples. None of them is specific enough. What sort of exercise do you want to do? Where will you do it? What restaurant do you want to go to? Do you want to go alone or with someone? In what setting do you want to speak? Again, the goal of not feeling nervous is unrealistic. If you insist that your success be defined by doing things without any anxiety, you will probably feel you have failed. Doing things *in spite of anxiety* and managing the feelings are more reasonable goals. As you meet these goals, anxiety will decrease with continued practice.

## Working with your thoughts

Negative thinking is at the heart of social anxiety. Learning to handle these negative thinking patterns takes consistent practice, but this work can pay off with a dramatic decrease in anxiety. In this unit we will discuss two aspects of anxious thinking – the focus of your thoughts, and the content of your thoughts.

People with high levels of self-consciousness spend a great deal of time focusing on themselves rather than on the world around them. They focus on their feelings, thoughts, and actions, and on trying to guess how others are reacting to them.
Excessive self-focus causes several problems:

- It increases your anxiety level. Having someone watch and criticize your performance is distracting and stressful, even if that someone is you.
- It takes your attention away from other people and from what is going on in the world around you. Excessive focus on your thoughts and feelings may cause you to miss important information from the conversations and activities in the world around you.
- If you are distracted, others may assume you aren't interested in them, and respond to you less warmly.

### Focusing more on others and less on yourself

An important way to reduce social anxiety is to learn to accept the anxious feelings and shift your attention from yourself to other people. Each of us has some degree of control over his or her attention, and chooses to focus on some aspect of the situation he or she is in.

Think of listening to a piece of music. You can focus and listen especially carefully to the drums, the horns, or the piano. You may have to keep reminding yourself to focus on the piano. Other aspects of the music may capture your attention for a while (listening to the drums when they are prominent) but you are able to keep your attention coming back to the piano. If you practice regularly, you become more skillful at focusing and you can describe things about the piano parts that you did not hear before.

Your attention works the same way when you interact with people. If you practice focusing your attention on the other person rather than yourself, you will learn to be more attentive. It is also helpful to focus on your values concerning how you would like to treat people. Many people find that focusing on the value of showing interest and kindness to other people (whether or not they are showing interest and kindness to you) is a very powerful way to interact with people. Here is a process you can follow:

- When you are feeling anxious, remind yourself to focus on others.
- Make it your goal to listen carefully to what the other person has to say.
- Think about how that person feels about what he or she is saying: Is this a situation involving strong emotion? Is this important information for that person? Or is he or she just passing on routine information?
- Often your attention will move back to yourself – especially when you are having an anxious thought or physical sensation. Don't worry about trying to stop these feelings from coming. Just accept them, and direct your attention back to the other person.
- Don't spend much time planning or rehearsing what you will say next. This will distract you from listening to the other person's side of the conversation. If you listen carefully, your own ideas about what to say next usually come quickly. (We will be saying more in later chapters about what to say in challenging situations.)
- Don't try to figure out what others are thinking about you during the situation. (This is called *mind reading* – something most of us can't do!) Focus on showing interest and kindness to them.

Use this approach in one-on-one interactions, with groups of people, and at meetings. Focusing your attention on others can be difficult at first. Keep at it, because you will improve with practice.

A basis of excessive self-consciousness is the belief that other people are tremendously interested in your every action and are waiting to criticize you. In reality, other people use most of their time and attention dealing with their *own* lives! They have a small amount of time to pay attention to you. If they happen to see that you are nervous

or uncomfortable, they may think about this for a short time and then they have to get on with their personal concerns. They are unlikely to go through the day remembering an incident that has happened to you, even if you do. Most reasonable people are not terribly critical of others. If a person is very critical, he or she may not be the kind of person you want to have a relationship with anyway. If someone *does* look your way when you are looking and you feel comfortable with that person, it is considered reasonable to smile briefly.

**Mindfulness: Focusing on the Present Moment**

Many people with social anxiety also have difficulty with excessive focus on past hurts and disappointments or on future threats. They are so focused on these concerns that there is little energy left for living in the present – the place where life really happens. Influential writers such as Jon Kabat-Zinn emphasize the negative effects of living our life so distracted from present moment and suggest the benefits of working every day on a different approach to experience called mindfulness. "Mindfulness means paying attention in a particular way: on purpose, in the present moment, and non-judgmentally. This kind of attention nurtures greater awareness, clarity, and acceptance of present-moment reality. It wakes us up to the fact that our lives unfold only in moments. If we are not fully present for many of those moments, we may not only miss what is most valuable in our lives but also fail to realize the richness and depth of our possibilities for growth and transformation." (Kabat-Zinn, 1994, p. 4)

**For example:** You may be going to a family gathering and focus on how quiet you were at the last gathering or how someone made a comment to you that you found upsetting or disappointing. You may wonder whether the people at the gathering will be recalling those same experiences. Having memories about past hurts is normal and you do not need to struggle with these memories. At the same time you will be more effective in your interactions if you keep returning your focus on the present moment. What interesting stories are people telling? What are the sights and sounds of the meeting? How is the food? The music?

In focusing on the present and on the world around you (rather than focusing mainly on your own thoughts), you will notice things about the gathering you enjoy and things you do not enjoy. But if you are fully present you will get more out of the experience and come across to other people as more present rather than distracted. Letting go of the need to judge every experience and focusing on accepting our experiences and the world as it is, can leave us more time and energy to participate in the experience.

The idea of learning to change your focus of attention is new to most people. The best way to see if excessive self-consciousness or concern about criticism and rejection are problems for you is to think about challenging situations you have faced in the past. Use the worksheet below to think about situations where this may have been a problem.

Come up with a challenging situation you've recently experienced:

_____

Any problems with excessive self-consciousness or concern about criticism or rejection?

_____

IF YES, what could you focus on instead?

**Dealing with anticipatory anxiety**

The strategy of focusing your attention on the other people in a social situation can be very effective for handling the situation itself. However, you may find yourself struggling with a great deal of anxiety in anticipation of a challenging encounter. For example, you may worry for weeks in advance about the annual company holiday party. In many cases this *anticipatory anxiety* lasts much longer and creates more stress than the situation itself.

Ask yourself: "How much time have I spent worrying about the situation?" and then, "How much time have I spent planning for the situation?" Typically people answer that they have spent many hours worrying and little or no time planning. Shifting this balance from worrying (which accomplishes nothing other than make you more anxious) to planning (activities in advance of the situation that may help it go more smoothly) can make the difference between feeling overwhelmed and well prepared.

**Trap: Avoid overplanning**

Although problem solving is very useful, some people spend too much time in the planning phase. An example would be spending eight hours working on a 20-minute presentation. Be sure to think through how much planning time is necessary; good planning is often done in a short period of time. Do not spend many hours planning for every possible catastrophe. This is just another type of worry.

## Healthy and unhealthy distraction

When you are anxious, distracting yourself (thinking about something else) can help manage the anxiety. But distraction can be healthy or unhealthy, depending on how you use it.

Here are some examples:

- You have studied all day for tomorrow's exam and are well prepared, but still worried about how the exam will go. *Healthy distraction:* You plan to take a break and see a movie rather than tire yourself out with more studying. *Unhealthy distraction:* You study until 2 a.m., awake exhausted, and are less able to concentrate.
- You have been worrying about an upcoming meeting with your supervisor and feel nauseated. *Healthy distraction:* You get out a piece of paper and spend 15 minutes making notes covering the issues you'd like to discuss. You then move on to the rest of your work for the day. *Unhealthy distraction:* You arrange to meet some friends at a bar. One drink becomes five, and you come to work the next day unprepared for the meeting and with a hangover to boot.
- You are on deadline for an assignment and don't think you can get the work done in time. *Healthy distraction:* You have an hour before you leave for a meeting so you decide to review one of the background papers for the assignment. *Unhealthy distraction:* You take a long coffee break before the meeting and put off the assignment until tomorrow.

Healthy distraction often involves focusing on an activity that will be helpful to you in the long-run (consistent with your values and goals). Unhealthy distraction may involve activities such as excessive work, alcohol use, watching television, or sleeping.

## The content of your thoughts

### Thoughts, beliefs, and assumptions

Scientists who spend their time thinking about thinking (nice work if you can get paid for it) cite thoughts, beliefs, and assumptions as important mental processes that relate to anxiety.

*Thoughts* comprise the stream of mental events we experience as we go through the day. Many of our thoughts come as words, but thoughts can also come as images. You may say to yourself, "I'm so clumsy – I'll spill my drink," or you may picture yourself spilling a drink all over your white linen suit. Most thoughts are neutral ("I think I'll finish reading this chapter before I take a break"), but anxious thoughts are often negative ("If I take a break before I finish this chapter, I'll never get back to it and I'll be shy for the rest of my life!").

*Beliefs* are the ideas and views that lie behind our thoughts. While most of us are aware of our religious and political beliefs, we may not be aware of some of our beliefs about social encounters. For example, some people believe they are unattractive. Others believe that people are always watching them and waiting to criticize their behavior. A small cadre of beliefs may form the basis of a multitude of thoughts. For instance, if you believe that others are always watching you, you will have many thoughts related to this belief when you are around other people.

*Assumptions* describe ideas about how one event relates to another in your picture of the world. Often these can be described using "IF...THEN...." statements. An example of an anxious (negative) assumption is, "IF I look nervous, THEN people won't like me." An example of a non-anxious (positive) assumption is, "IF I look nervous, THEN people will accept me the way I am." An assumption often involves a prediction about the results of an action.

By paying attention to your thoughts you can often identify the beliefs and assumptions that lie behind them. Here are some examples:

| Anxious thoughts | Related beliefs and assumptions |
|---|---|
| Everyone will look at me when I enter the room.<br>People will see how anxious I am.<br>What if people think I look stupid? | People will watch me to see if I do something they can criticize or laugh at. |

How do you change these negative thinking patterns? There are three steps in the process:

### Step 1: Identifying anxious thoughts

You've already started to *identify* your anxious thoughts by completing the worksheet in Chap. 6 (Fig 6.3). When you're beset by anxious thoughts, you tend to see things as more negative than they really are. Before the event, you may make negative predictions about how other people will respond to you, how you will perform, and how events will turn out. After the event, you may make negative evaluations of how you handled it. Certain patterns of anxious thinking are associated with social anxiety. Being aware of these patterns can help you identify them.

- **Perfectionism.** Most of us like to do things well, but some people are so focused on doing things perfectly that it causes a great deal of distress. If you are a perfectionist, you may spend much more time on an activity than is warranted, taking time away from more rewarding pursuits. Perfectionism can be particularly troublesome if someone is watching you. You may be so worried about making a mistake that you

can't perform well. The most reliable way to avoid mistakes is not to do anything; many perfectionists become expert procrastinators who accomplish very little. Creative people allow themselves to make mistakes and learn from their mistakes as they go along.

- **All-or-nothing thinking.** Related to the problem of perfectionism is all-or-nothing thinking. When you think this way, if a social encounter does not go the way you wanted, you see yourself as a complete failure. A more constructive approach is to see where you have succeeded and consider where you can do even better in the future.

- **Catastrophic thinking.** This involves taking a disappointing experience and thinking it into a catastrophe. If you do not get that job offer (close that sale, get that date), you will never have another chance. In reality, most people have to put in a good number of job applications before they receive an offer.

- **Overestimating the danger in a situation.** Most of us know people who worried excessively about failing each exam despite their history of getting strong marks in all their courses. Likewise, a socially anxious person may expect social encounters to turn out badly, even though they often turn out well.

- **Underestimating your ability to cope with a difficult situation.** You may feed your anxiety by telling yourself that you will not be able to cope with a difficult situation. In reality, most people -including you- rise to the occasion when faced with challenging situations.

- **Interpreting anxiety as a sign of failure.** You may interpret your anxiety in a difficult situation as a sign of failure. Anxiety is a normal emotion. If you set out to accomplish a goal and achieve it, this is a success whether or not you were anxious during the activity. When climbers reach the summit of Mount Everest and then descend, they often feel sick and physically exhausted afterward. We do not see it as less of an accomplishment because of their emotional response.

- **Mind reading**. You may leave a difficult social situation thinking that other people reacted negatively to you. You may have seen a subtle sign that you interpret as a negative reaction -- a frown, a glance away, or a certain look in the eyes. Realistically, it is very difficult to know what another person is thinking without asking. Even couples who have known each other for many years often have to ask to find out what the other is thinking.

    - **Negative bias in thinking about yourself.** You may emphasize your weaknesses and minimize your strengths. You focus on your negative experiences rather than the positive ones. You may use negative language such as "I'm a failure" or "I'm a loser" in describing yourself. Negative language is discouraging and tends to distract people from problem solving.

## Step 2: Challenging anxious thoughts

Once you have identified your anxious thoughts in a difficult social situation, the next step is to *question* how realistic and helpful they are. Ask yourself:

- *How realistic is this thought?*
- *What evidence do I have for this thought?*

- *Are there other ways of looking at this situation?*

**Step 3: Develop coping thoughts:**

Developing *coping thoughts* follows naturally from questioning anxious thoughts and the resulting discussion you have with yourself. *Coping thoughts* help you see difficult encounters more realistically and suggest ways you can handle them. This is different than just using positive thinking. While coping thoughts are encouraging in tone, it is especially important to be realistic in sizing up the situation. For example, unless you are fabulously good-looking, rich, or a remarkable dancer (or all three), you would not want to develop a coping thought for parties that goes, "All the (wo)men in the room are dying to take me home." Similarly, you do not want to say to yourself, "I will not be anxious when I argue the case before the Supreme Court" when the reality is that you probably will be nervous. A more realistic thought for that situation might be, "I know my stuff, and I'm excited about this opportunity to show it."

People describe this approach as talking themselves through an anxiety-arousing situation. The best way to explain this process is with some examples of how people *identify* anxious thoughts and related beliefs, *question* and *discuss* how realistic the thoughts are, and *develop coping thoughts*.

Using our example from above:

***Anxious thought:*** "Everyone will look at me when I enter the room."

***Related belief or assumption****:* People watch me to see if I do something they can criticize or laugh at.

***Questions:*** *Are* people really watching me for something to criticize?
Is everybody watching me or are just some people looking at me?
How much of the time are they watching me?

***Discussion:*** An alternative explanation is that most people watch others just to pass the time. Most reasonable people are not terribly critical. At any time, maybe a couple of people are looking at me; the rest are paying attention to other things.

***Coping thoughts****:* "It's normal for people to watch other people. They usually get interested in something else after a few minutes."
"Most people are busy thinking about their own concerns. My situation will interest them for only a short time. I can handle it."

In reading this unit you have identified patterns of anxious thinking. Now, use the worksheet below to list social situations that are difficult for you and your anxious thoughts in those situations. Then work through the process of identifying related beliefs and assumptions, questioning them, and developing coping thoughts. As you continue to work on overcoming social anxiety, it will be helpful to return to these questions.

Difficult situation:
_____

Anxious thoughts:
_____

_____
_____
Related beliefs or assumptions:
_____

Question: How realistic are these thoughts?
_____

_____
_____
Coping thoughts:
_____

_____
_____

**Tip: Practice using coping thoughts.**
When some people consider coping thoughts they say, "I already know that. How is that going to help me?" Much of the information in coping thoughts may be knowledge you already have. The key to using coping thoughts effectively is to get in the habit of using them whenever you are anxious. The more you use them, the more readily you will be able to call them to mind when you need them.

## Your thought diary

Now that you are aware of the role anxious thinking plays in social anxiety, you must use this knowledge in everyday life. A way to do this is to use a diary to keep track of both your anxious thoughts and your new coping thoughts. Watch for times when you are feeling anxious before, during, or after a challenging situation. Make note of the date, the situation, the anxious thoughts that arose, and the coping thoughts you employed, and rate your anxiety on a 10-point scale from 0 (no anxiety noticeable) to 10 (as anxious as you ever get). This diary will help you identify anxious thoughts and see how consistently you are using coping thoughts.

| Date | Situation | Anxious thoughts, coping thoughts | Anxiety rating 0 - 10 |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

Physical Symptoms and Learning to Relax

Physical symptoms are a normal part of the anxiety response, but they can be frightening. You may worry that others will notice your blushing, excessive perspiration, shaky hands, trembling voice, or noisy stomach. While these physical symptoms involve

part of the nervous system that is not under direct voluntary control, there are a number of strategies you can use to indirectly influence them:

- *Acceptance:* By resisting physical symptoms of anxiety, you may increase them, whereas if you accept the symptoms, you may actually reduce them. Acceptance is one of the most effective and powerful ways of dealing with unpleasant sensations and thoughts. Your body's natural tendency is to return from an aroused state to a calmer state; it will get there sooner if you do not struggle against symptoms.
- *Refocusing:* Focusing your attention away from your symptoms and toward the external environment can help. For example, concentrate on the conversation you're involved in, rather than on your racing heart.
- *Coping thoughts:* These can help you both accept your symptoms and refocus your attention. Here is an example: "I'm really sweating a lot. Don't fight it. Just let it pass. Pay attention to the other person."
- *Plan what to say if someone comments:* You may be worried that someone will comment on a noticeable symptom ("Wow, you're sweating more than a pig at a luau, Hank!"). Most times, no one will say anything. But you'll feel less anxious if you are prepared with a good response. We'll discuss what you can say in these situations shortly.
- *Masking the symptoms:* Many people find they can conceal their anxiety symptoms. This can help you cope in the short term until the symptoms become less of a problem.
- *Relaxation:* Later in this unit we will describe several relaxation strategies that can help reduce physical symptoms.

**What if someone notices the symptoms?**

You may spend a lot of time worrying that someone will comment on your sweating, blushing, shaky voice, or noisy stomach. Ask yourself: "How often has someone commented on my anxiety symptom(s)?" This usually has never or only rarely happened. This is because the symptom may be obvious and important to you, but not to others. If you worry that others might comment on your symptoms, take a few minutes now to note each symptom and some responses. Practice saying the responses until you remember them easily.

**Tip: How much do you say? It's up to you.**
A rule in most social situations is you decide how much or how little information to disclose about yourself. When I arrive at work and someone asks "How are you today?" I am free to answer "Not bad," even if I feel upset about an argument at home that morning. On the other hand, I could answer "Really stressed from an argument with one of the kids." It's totally up to me. This is not an issue of being honest or dishonest. Rather it is an issue of how much you want to talk about your experiences at that time.

**Masking symptoms**

Many people have discovered methods to mask uncomfortable and embarrassing symptoms. Those with excessive perspiration in the hands have applied antiperspirant at night to reduce perspiration when shaking hands the next day. Others with excessive blushing may wear darker clothing that provides less contrast when the skin is flushed. People with excessive stomach activity sometimes obtain recommendations from doctors or pharmacists about medicines to reduce it. Each of these approaches can be useful, provided you do not use them as your only way of coping with anxiety. Once you

broaden your range of coping skills, many of these masking approaches will no longer be necessary and it is helpful to let go of masking strategies.

## Relaxation strategies

Many of us experience a high level of muscle tension in everyday life. For some people, it is if they are working in a nitroglycerine factory. They are constantly looking for signs of an impending explosion and are ready to run for their lives at any moment. High levels of tension can also be related to a variety of health problems, including headaches and backaches.

Learning to relax when you are under pressure can help you perform more skilfully and quickly. Athletes learn that their performance is much smoother if they are able to relax their bodies and use just the muscles they need. Excessive tension leads to awkwardness and using more energy than you need to accomplish the task.

We will briefly review three relaxation approaches: relaxed breathing, deep muscle relaxation, and imagery relaxation. If you have already learned a relaxation procedure you find helpful, you may wish to continue using that one. But it can be useful to have a repertoire of relaxation strategies to use at different times and in different situations, so read on.

### Relaxed breathing

This is a simple technique that you can learn quickly. There is a tendency to breathe faster when you are anxious; this can lead to symptoms like dizziness or tingling in the hands, feet, or face. Relaxed breathing helps to bring these under control. One of the beauties of relaxed breathing is that you can use it anywhere without anyone noticing – in a parent-teacher meeting, standing in line at the grocery store, riding a bus, or at a bar mitzvah reception.

Start by observing your typical breathing pattern:

- Sit in a comfortable chair with armrests.
- Place your feet on the floor in front of you.
- Rest your elbows on the arms of the chair.
- Put one hand on your chest and the other on your stomach.
- Now close your eyes and breathe in a way that feels natural to you. Let yourself be as relaxed and loose as possible.
- As your breathing settles down and you get into a comfortable rhythm, notice how much the hand on your chest moves, and how much the hand on your stomach moves. Continue for a minute or two.

People often think that the chest muscles do most of the work of breathing. In fact, when you are relaxed the muscles of your diaphragm do most of the work. The diaphragm separates the chest cavity from the abdomen. It contracts (pulls down and shortens) to bring air into your lungs and relaxes and moves back up to let the air flow out of your lungs. During relaxed breathing, your stomach moves out when you inhale and settles back when you exhale. There may be some movement in your chest muscles, but your stomach moves more. To confirm this, you may want to watch a sleeping child or pet (a cat or dog); when you do, notice how little the chest moves compared to the abdomen.

Now it's time to practice relaxed breathing. When you practice, make sure you are breathing at a relaxed pace (not too quickly), and allowing your diaphragm to do the work. Here's how to do it:

1. *Begin practicing in a quiet spot.* Sit or lie in a place with good support for your back, neck, and arms.
2. *Breathe through your nose.* Close your eyes and focus on your breathing. Breathe through your nose (if it's not blocked) at your usual rate.
3. *Breathe from your diaphragm.* Let your stomach move out about an inch each time you inhale. When you exhale your stomach will return to its resting position.
4. *Take long slow breaths, pausing for one second after you inhale and one second after you exhale.* Remember this is slow, relaxed breathing, not *deep* breathing, so take a natural amount of air, not a deep breath.
5. *Once you are in a comfortable rhythm, slow down the pace of your breathing.* Find a natural and relaxed pace that feels comfortable.
6. *Imagine the tension flowing out of your body with each exhalation.* Many people find it helpful to imagine saying a word such as "relax" or "calm" each time they exhale.
7. *Keep up the practice for 5 or 10 minutes so you get used to the rhythm.*

Many people find they can learn the technique in a few sessions because it is simply breathing in a normal relaxed way. Other people find it more difficult to settle into a relaxed rhythm. They find that they become uncomfortable when they focus on breathing. These people often have the most irregular breathing in anxiety provoking situations. If relaxed breathing is difficult for you, try to continue practicing until it becomes more comfortable. About one in ten people never become comfortable with the relaxed breathing technique. If you're one of them, don't fret. Move on to one of the other techniques.

*Breathing meditation.* A very convenient form of mindfulness mediation that follows very easily from relaxed breathing practice, involves a quiet period of focusing on your breathing. As with the instructions above, get as comfortable as you can in your current environment. Close your eyes if possible (although it can also be done with eyes open). Focus your attention on your breathing and notice how your body feels as you breathe. Feel the sensation of the air moving through your nose or mouth. Notice your abdomen moving as you breathe in and out. If there is any discomfort in your body let yourself notice that also. As you continue the focus on your breathing, you will notice that your attention wonders to thoughts about all kinds of memories and experiences. Accept these thoughts without judging them (as good thoughts or bad thoughts), notice what you are thinking about, and then direct your attention back to your breathing. Continue this focus on your breathing as long as you would like to continue. When you decide you have finished your meditation, open your eyes and focus your attention on the outside world. What do you see, hear, feel, and smell? Then move on to your next activity.

**Deep muscle relaxation**

This technique involves moving systematically through the muscles of your body, first tensing and then relaxing them, to release unnecessary tension. Start using the program outlined here:

1. *Begin practicing in a quiet spot:* Sit or lie in a place with good support for your back, neck, and arms. An easy chair or recliner is especially good. Do not lie down if there is a risk you will fall asleep before you have completed your practice.
2. *Tense each muscle group as described below for about five seconds:* Focus on the feeling when the muscles are tense. Then slowly release the tension. Feel the tension flowing out of the muscles as they become looser, heavier, and more relaxed. Let the

muscle group stay relaxed for 10 to 20 seconds. Tense and relax each muscle group twice before moving on to the next group.

3. *As you release the tension in each muscle group, say the word "RELAX" slowly to yourself.*
4. *Notice how your muscles feel when they are tense and when they are relaxed.*

Now tense and relax each muscle group **twice**:

1. Clench your left fist; then relax.
2. Clench your right fist; then relax.
3. Bend both hands back at the wrists to tense the muscles in the backs of your hands and forearms; relax.
4. Clench both fists, bend your elbows, and bring your fists toward your shoulders to tighten the muscles in your upper arms; relax.
5. Pull your shoulders up toward your ears; relax.
6. Wrinkle your forehead and brow; relax.
7. Close your eyes tightly; relax. (Be sure to remove contact lenses first.)
8. Clench your jaw and teeth; relax.
9. Press your lips together tightly; relax.
10. Bring your head forward and pull your chin in toward your chest; relax.
11. Arch your back and stick out your chest and abdomen; relax.
12. Take a deep breath, filling your lungs completely, and hold it for five seconds; exhale and relax.
13. Tighten the muscles in your abdomen; relax.
14. Tighten the muscles in your lower back and buttocks; relax.
15. Stretch out both legs in front of you, pointing your toes; relax.
16. Tighten your calf muscles by flexing your feet and pointing your toes up toward the ceiling; relax.

After you have moved through all of the muscle groups, remain relaxed for two or three minutes with your eyes closed. Allow your body and your breathing to relax and focus on that feeling. Tense the muscles firmly, but don't overdo it. If you feel pain, cramping, or trembling, you are tensing too hard or too long (or both). If you have muscle or joint problems, you may wish to gently move or stretch that area rather than tense it, then relax it.

Most people find if they practice this exercise daily for a week or two they are able to relax their muscles effectively. Once it is going smoothly, move through the tense-and-relax cycle more efficiently by using larger groups of muscles:

1. Hands and arms;
2. Head, neck, and shoulders;
3. Chest and upper back;
4. Abdomen;
5. Lower back and buttocks;
6. Legs and feet.

Once you have completed the tense-and-relax cycle, remain in place and allow yourself to stay fully relaxed for about 15 minutes. If, like most of us, you don't have 15 minutes to relax, then 10 will do. The important thing is to carve out *some* quiet time to practice relaxation. You won't be able to do this if the TV is blaring, the phone is ringing, or your kids are yelling. Tell those around you, "I need 15 minutes alone in my room. Please don't bother me unless it's an emergency." Then go to your room, close the door, and don't emerge unless it's really an emergency.

After you have practiced the shorter list of muscle groups for a week or two and it is going well, move on to the simplest procedure of all: Tense your whole body for a few seconds and then relax or take a long, slow breath and then relax your whole body as you exhale. Once you reach this level, you will be able to use the muscle relaxation strategy at any time – at a social gathering, in line at the checkout counter, or even when you are riding a bike.

Check your muscle tension level several times during the day. If it's high, take a minute or two to relax.

**Imagery relaxation**

Imagery relaxation – using your imagination to create a relaxing series of images – is a powerful method to focus your attention. People who have difficulty with anxiety often form images of the many catastrophes that can happen. With imagery relaxation, you develop a detailed mental picture of a relaxing situation (or one you imagine would be relaxing). Think of vivid details and include as many of your senses as possible. What would you see, hear, smell, taste, and feel? Here is an example:

*I'm sitting on a soft patch of grass at the side of a lake. It is evening and the air is pleasantly warm against my skin. The sun is getting lower on the horizon and the sky is starting to turn orange and pink. I can hear a motorboat in the distance. I can feel the moist air and smell the flowers. Birds are calling from the woods nearby. I am at peace.*

Now get a piece of paper and write a vivid description of a relaxing scene you would like to use.

Imagine this scene during your imagery relaxation sessions. Allow yourself to think of other aspects of the scene and change it, as long as it remains relaxing. This technique can be especially helpful when you return home after a busy day or before you go to sleep.

**Relaxation Practice**

It is useful to familiarize yourself with more than one relaxation technique. Imagery relaxation works best during quiet periods or before you enter a challenging situation, while breathing and muscle relaxation are easier to use while the situation is happening.

Master one relaxation technique at a time. Practice every day until it becomes familiar. If possible, practice at first when you are not feeling tense. Then start using the technique when you are anxious. Once you have learned a technique, it will stay with you indefinitely provided that you use it from time to time in your everyday life.

**Trap: Don't focus on relaxation alone.**
Some people put too much emphasis on using relaxation techniques alone in an attempt to reduce anxiety feelings, without working on the other parts of the program. Relaxation works best when you use it consistently over time with other coping techniques. It is best not to use relaxation approaches to struggle with feelings of anxiety. Take a little time to

let go of your tension if you can, then accept anxious thoughts and feelings and move on to a focus on your current activities and goals.

## Relaxation Practice Diary

Use the relaxation practice diary to keep track of your practice. After each practice session, record the date and time it occurred, where you practiced, how many minutes you practiced, and your tension level (on the one to ten scale) at the start and end of the session. Finally, comment on how the session went.

| Date/ Time | Where I practiced | Minutes spent practicing | Tension level- start | Tension level- End | Comments |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |

**Tension/Anxiety Rating Scale**

| NONE | | MILD | | | MODERATE | | | SEVERE | VERY SEVERE |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

**Trap: Don't skip regular practice**
Many people have difficulty making time for relaxation practice. Remember that a small time commitment to regularly practice these skills can save you time later. The benefits of relaxation may last for years after you master the techniques.

# Practicing what you've learnt

## The key to conquering anxiety

*Facing your fear* is the best way to overcome anxiety. The idea is not new. Most of us know the answer to the old question, *what should you do if you fall off a horse?* The correct answer is:

a. Shoot the horse
b. Eat the horse
c. Shoot the horse, then eat it
d. Get back on the horse and ride again as soon as possible
e. Sue the horse

The correct answer is, of course, "d". (Unless you live in France, in which case "b" is also acceptable, provided you've got the right wine.) Therapists routinely advise people to "get back on the horse" when they have experienced traumas such as motor vehicle accidents. The sooner you drive again, the sooner you will become comfortable with driving. The longer you avoid driving, the more your fear about driving will grow.

Using coping thoughts and managing physical symptoms won't be effective in the long run unless you also face your fears. Exposing yourself to your fear--or *exposure therapy*, as it is also known--is best accomplished step by step. This allows you to move ahead without having to endure situations where the anxiety is unusually high.

**Avoidance behavior maintains anxiety**

We've talked about avoidance behavior, a strategy we learn early in life to keep ourselves out of uncomfortable or painful situations. We can hear you saying, "But I don't avoid many of the situations that make me anxious!"

Some people don't avoid anxiety-provoking situations, yet find their anxiety persists. Why does their anxiety continue even though they are facing their fears? The answer here often lies with more subtle types of avoidance. You may be physically present but still avoiding some important aspects of the situation. For instance:

- You go to school or work every day but avoid talking to certain people, such as fellow students you don't know well, or the head of your department.
- In a meeting or class you avoid eye contact with the person in charge so she or he won't ask you a question.
- You avoid opportunities to go to coffee or lunch with your co-workers, or you go only with one or two you feel safe with.
- You listen to people discussing a topic you're interested in, but avoid giving your opinion because you are afraid of saying something foolish or stumbling on your words.
- You go to a social gathering only if someone you know well and trust is there with you. You rely on that person to do most of the talking.
- You meet one or two people at a gathering and spend the whole time with them. You do not make an effort to speak to other people.
- You spend a great deal of time preparing for all possible questions that could come up at a meeting or presentation.
- You go out to eat, but you avoid foods that are messy or easy to spill (soup, spaghetti with sauce).
- You worry about your hand shaking and spilling your beverage, so you order only those beverages with lids and straws.

In each of these cases, *subtle avoidance* prevents you from being fully involved in the situation. You are present, but you engineer ways of avoiding aspects of the situation you fear. Avoidance of anxious feelings, thoughts, and memories also feeds anxiety. Some people go to great lengths in their attempts to avoid these experiences also and usually the result is more anxiety. This kind of avoidance limits the range of options and choices for your actions. You then continue to fear the situation because you worry, "What if my way of coping (avoiding) doesn't work?" You never develop confidence that you can handle the situation.

Some people do have anxiety problems but no avoidance behaviors. For these people, it is usually anxious thinking that maintains their anxiety. If this is your situation, it is still important for you to face your fears. As you read this chapter, identify social situations that are difficult for you *even if you do not avoid them,* and practice going into those situations and using the coping techniques described in units 3 and 4.

Another way to avoid being in an anxiety-provoking situation is to mentally avoid it. It is possible, for example, to be physically present at your office's holiday party, but wishing so hard that you weren't that you're really not there in spirit or in mind. Some people describe being in a fog throughout the event, focusing on only one thought: "It'll be over soon. It'll be over soon." Others drink enough alcohol that they're out of touch with what's going on around them. These forms of cognitive avoidance–not being there in mind–have the same effect as other kinds of avoidance: they rob you of the opportunity to become comfortable in and confident about your ability to handle a situation. It is therefore important to focus on being in the situation: don't let your mind wander, make a

point of consciously taking in your surroundings and other people, and let it sink in that you're actually there! Anxious feelings and thoughts will be part of your experience also—don't fight them, just accept them and focus on your values and goals in the situation.

**Identifying difficult social situations**

Think about the difficult situations you listed in the previous unit. Now that you've reviewed your list, think about the avoidant behaviors you've used to cope with these situations. There may be some situations that make you anxious which you don't avoid. You may be using some *subtle avoidance behaviors* in these situations. Review the examples of *subtle avoidance* and list the ones you typically use on the worksheet.

**Developing assignments to face your fears**

So far, you have identified situations that make you anxious, along with avoidance behaviors you use to cope with them. Now you're ready for the next step: planning assignments to face your fears. To develop any new skill, you progress step-by-step, from where you are to where you would like to go. Your list of difficult situations will tell you where you are. The short-, medium-, and long-term goals you identified at the end of Chap, 6 will tell you where you would like to go. The best way to achieve these goals is to practice *facing your fears*. The more time you spend facing a fear, the more you will reduce it.

In the following section you will come up with ideas for *practice assignments*, social activities you would like to practice based on your goals. You should choose assignments that *are important to you, increase in difficulty,* and *are repeatable*.

**1. Make the assignments important to you**

Start with assignments that matter to you (that fit with your values and goals) and have some natural rewards built in.

*Strong Assignment:* If you are working toward being able to go to a fancy restaurant for your wife's birthday, "Eating in a restaurant with friends" would be a good assignment. The assignment would feel important and there would be lots of natural rewards (enjoyable food and company) to keep you working at it.

*Weak Assignment:* If you are working toward being able to speak before a large audience but have no current need to do so, it would not make sense to choose "speaking to a large group" right away. The assignment wouldn't feel important and there wouldn't be any natural rewards to keep you going. You would probably feel that you were working hard to learn a skill you were unlikely to use in the foreseeable future.

**2. Make the practice assignments increase in difficulty**

Don't start with assignments that make you extremely anxious. Instead, start with assignments that make you somewhat anxious and over time move toward working on more difficult assignments. Remember, you've got to walk before you run. Start small and build on success.

*Strong Assignment:* If you ranked "Talking to a co-worker at coffee break" as one of your easier short-term goals that would be a good assignment to start with. You could test your coping strategies without feeling overwhelmed.

*Weak Assignment*: If you ranked "Giving a formal talk to a group at work" as the most difficult of your short-term goals, it would not be a good assignment to start with. You would probably feel overwhelmed by starting such a difficult assignment before you had successfully completed easier ones.

**3. Make the practice assignments repeatable**

Pick assignments you can work on over and over again. Situations that you can control are best. Facing tasks that come up unexpectedly can help you overcome anxiety, but you cannot control when they will occur. They are difficult to practice frequently or regularly. Similarly, assignments that rely on unusual circumstances or other people are also hard to practice regularly. Assignments you can arrange every day or every week are especially effective.

*Strong Assignment:* "Making eye contact with people at work and around the neighborhood" is a good assignment because you can practice every day.

*Weak Assignment:* "Going to concerts" might be a difficult assignment to repeat if there aren't frequent concerts in your area (and if you aren't independently wealthy). This doesn't mean you shouldn't go to concerts, but you should also pick other repeatable assignments involving sitting in crowded places so you can practice frequently.

**Tip: Build endurance**
Practice each assignment long enough so that it has a chance to sink in. You may have attended a crowded meeting every Tuesday for the past two years and wonder why you're still anxious. The answer may lie in how long you spend in the situation. If you enter an anxiety-provoking situation and stay only a few minutes, it isn't long enough for your body and mind to adjust so you feel more comfortable next time. How long is long enough? A minimum of 20 minutes – and preferably longer – each time you are in the situation should be long enough. For example, if you are practicing having lunch with colleagues, be sure you sit at the table with them for at least 20 or 30 minutes before you head off.

## Breaking down goals into gradual steps

Some of your short-, medium-, and long-term goals are activities you can start working on right away. Others may seem too complicated or difficult to launch into immediately. You can start working on these challenging goals sooner if you break them down into smaller steps.

- *Break down a complicated task into smaller steps*. Having a group of family members, friends, or neighbors over for dinner may seem difficult. Start out by having one person over for coffee several times. Once you are more comfortable with this, have a few people over for coffee and a snack. Then start having one person for lunch or dinner, then a few people, and so on. (We were only kidding about serving horse and wine. Avoid horse altogether. For a list of mammals not to serve at social occasions, check out www.donteatme.com.)

- *Start practicing with just one or two people; then work toward larger groups,* If you have difficulty speaking at a large meeting, start by speaking informally at small meetings, perhaps by asking a question. If you have trouble with conversations at large events such as wedding receptions, practice speaking to unfamiliar people at smaller events. For instance, have coffee with someone you don't know well at work or in the neighborhood.

- *Start by talking to people who are less intimidating and work your way up.* Your goal may be to talk comfortably with your manager at work. If this is too difficult for a first step, you could start by talking with co-workers more often, then a supervisor, and then the manager. Talk about casual topics at first ("How was your weekend?") and move toward more substantive topics ("There's a problem I'd like to discuss with you").

- *Start out with casual situations and work toward more formal ones.* You may find it difficult to dine at fancy restaurants or business banquets. Facing less formal situations can help prepare you face the more formal ones later on. One woman we know developed a strategy to overcome her restaurant anxiety. When she knew she had a meal coming up, she would find out where the event would be held, and go alone or with a close friend to the restaurant for lunch or dessert well in advance of the event. This allowed her to become familiar with the layout of the restaurant, and scope out the location of coat racks and restrooms. She was then better prepared when she went with a group. As she became more comfortable with eating in public, she no longer needed to visit the restaurant in advance.

**You're allowed to make mistakes -- try it, you'll like it!**

A major factor that may influence your willingness to practice challenging situations is the fear of making mistakes. As we mentioned earlier, the most reliable way to never make a mistake is to avoid doing anything new. As people participate in social situations it is normal to make mistakes. We can speak with some authority because we are the world's champions at spilling coffee (usually all over papers at a meeting), tripping over words, mixing up names, and slamming into people in the hall. If you develop a willingness to make mistakes, you will be able to be comfortable in a wide range of social situations. Here are some ways of handling mistakes:

- Burst into tears and run screaming from the room. (We don't recommend this.)
- You can handle most slips of the tongue by either ignoring them or simply repeating the sentence and forging ahead. Do not spend a lot of time explaining or clarifying.
- Bumping into people can be handled with a simple "Sorry," or "Excuse me," and then getting on with things. If you bump into someone with a great deal of force, a simple "I'll be happy to pay for the surgery" should suffice. Again, keep it short and sweet.
- You can handle obvious mishaps such as spilling a cup of coffee by cleaning up and making a humorous comment such as, "It's going to be one of those days," or "I guess this will ensure that I clean up my desk." It is best not to engage in excessive apologies or self-criticism. People appreciate someone who does not take herself or himself too seriously.

As you become more comfortable in social situations, focus on handling mistakes in a relaxed way with a good sense of humor. Some people who rarely make mistakes may benefit from making some and handling the situations effectively. Wouldn't it be an interesting experiment to intentionally spill a glass of water at a meeting just to practice handling it with humor!

**Tip: Repeat practice assignments over and over again**.
Think of a skill you have learned over the years (for example, keyboarding, driving, or swimming). How many mistakes did you make as you learned? How many hours did you practice before you became good at it? Most of us have to practice the same activity over and over until it becomes an automatic part of our routine. In order to become comfortable and skilled in social situations, you must practice a great deal – the more frequently, the better. Focus on learning the new skill – not on avoiding mistakes.

**Planning practice for each week**

As you face your fears, you should plan one week of practice at a time. A sample of a completed sheet is included at the end of this unit. Sometimes you'll decide to add a practice assignment after you've planned your assignments for the week. Adding an assignment if an opportunity comes up or if you spontaneously decide to do something

more is great. Using the steps and assignments you just outlined, now turn to the blank weekly practice sheet and plan several assignments for the coming week (make as many copies as you want). Writing out your assignments makes it more likely that you will follow through.

As with your goals, your practice assignments should be specific and concrete so you can tell when you have completed them. There is space on the weekly practice sheet to keep track of the time you spend practicing each assignment over the week. We encourage you to spend several hours a week practicing. A few minutes a day just isn't going to do it.

## Weekly Practice Sheet

Date: _____to _____

Describe the assignments as specifically as possible in the spaces below. Try to say exactly what you plan to do. Circle the boxes that correspond to the days on which you plan to do each assignment. Check off the boxes as you complete each assignment and write how much time you spent doing it.

| Practice Assignments | Sun. | Mon. | Tues. | Wed. | Thurs | Fri. | Sat. |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Total time invested in practice this week:_____

## EXAMPLE:

## Weekly Practice Sheet

Date: *June 10* to *June 16*

Describe the assignments as specifically as possible in the spaces below. Try to say exactly what you plan to do. Circle the boxes for the day or days on which you plan to do each one. Check off the box under the day when you do the assignment and note how much time you spent.

| Practice Assignments | Sun. | Mon. | Tues. | Wed. | Thurs | Fri. | Sat. |
|---|---|---|---|---|---|---|---|
| *Go for morning and afternoon coffee breaks with Fred. Ask a couple of questions.* | | ✓20min<br>✓10min | ✓20min<br>✓20min | *No* | ✓10min | ✓20min<br>✓20min | |
| *Talk for a few minutes to co-workers outside of coffee breaks.* | | ✓2 min | ✓10min | ✓7 min | *No* | ✓10min | |
| *Invite neighbor for coffee on Saturday.* | | | | | | | ✓45min |
| *Ask sister over for dinner on Friday night.* | | | | | | ✓90min | |
| *Make eye contact and say hi to three people on the street Monday through Friday.* | | ✓2 min<br>✓3 min | ✓1 min | ✓2 min<br>✓1 min<br>✓5 min | ✓1 min<br>✓3min<br>✓2 min | ✓2 min<br>✓3 min | |
| Phoned Diane in Nashville on Thursday | | | | | 45 min | | |
| | | | | | | | |

Total time invested in practice this week: *6 hours, 24 minutes*

**Putting it all together**

As you work on your practice assignments, it is important that you use other coping skills as well. Accept your anxious thoughts and feelings and stay focused on your values and your goals (such as showing kindness and interest to others) in that situation. In challenging situations, remember to focus on other people and not yourself. Be aware of your anxious thoughts before, during, and after the situation. As you practice in more situations, you may discover new anxious thoughts and want to develop new coping thoughts to deal with them. Work toward beliefs about people and social interactions that are realistic and helpful.

Remember that, while it is helpful to recognize anxious thoughts and to consider more realistic coping thoughts, it is not necessary to struggle with your thoughts. Accept the anxious thoughts and feelings and then focus on your goals and the world around you.

**Trap: Don't be a hypercritical coach.**
You may have a tendency to negatively evaluate your performance during and after challenging situations. This excessive self-criticism can discourage you from practicing. Cheer yourself on as you evaluate your efforts. Pat yourself on the back when you've taken a risk and done something difficult. And give yourself a break – don't expect perfection!

Appendix I

Unit materials: Treatment group

**TUESDAY READING**

Instructions for using the WebCAPSI system

*Excepts taken from Pear (2010) General Manual for Courses using CAPSI (Computer Aided Personalized System of Instruction). Used with permission

For this study, you will need to access two online websites: Survey Monkey and WebCAPSI. The WebCAPSI program is used to teach undergraduate and graduate courses at a number of different universities, including the University of Manitoba. For this study, you will be assigned a specific username and password to access the system. You will be able to change your password on the system after logging in for the first time.

If you are currently or have previously been registered in WebCAPSI-taught courses, you WILL NOT be able to use the same username and password as you use to access your courses, but must use the username e-mailed to you from the researcher. This will help maintain confidentiality and keep your answers to this study distinct from any course work.

For the purpose of this study, the terms "researcher" and "instructor" will be used interchangeably.

**Accessing the CAPSI Program**

You may access the CAPSI program from any location (home, workplace,campus, etc.) with a personal computer that is connected to the Internet and that has an appropriate Web browser. (The display and other functions of the program work best on Microsoft Internet Explorer.) To access the program load your Web browser, click the address bar, type http://www.webcapsi.com into the address bar, and then push the enter key. The screen you will see is shown in Figure 1. Note There is no need to access the link to Undergraduate Course Information as it will not be relevant to this study.

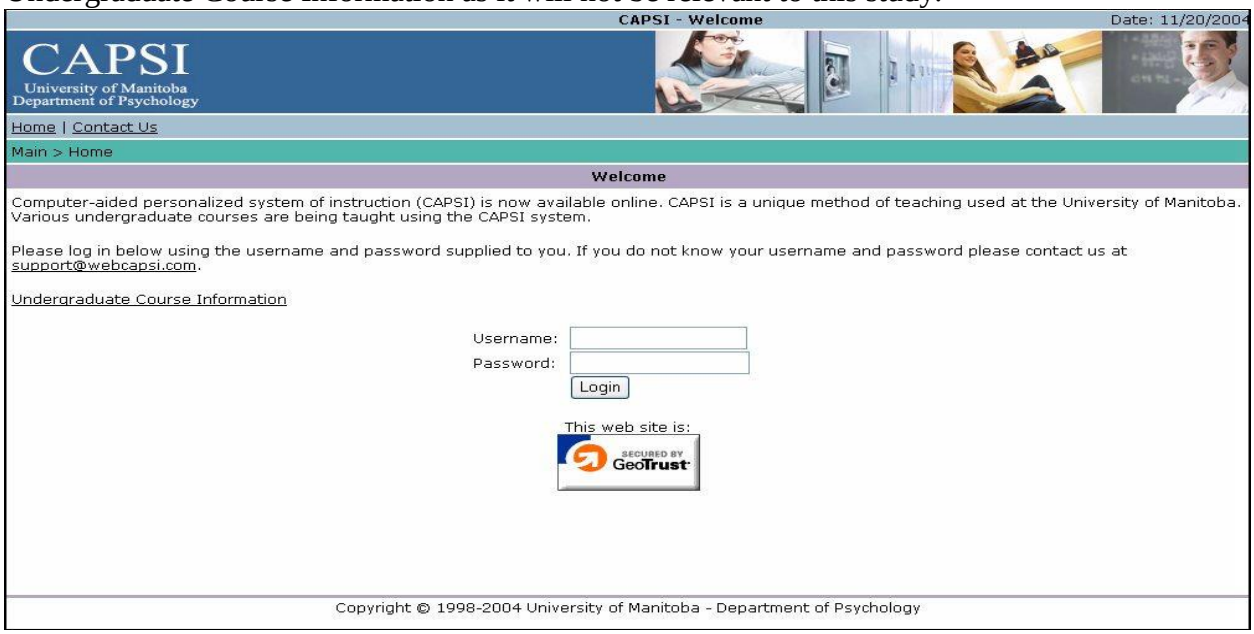


Figure 1. The login screen for the CAPSI program

1. Visit the course Website to find helpful and important information about your course. To do this, click the line that says "Undergraduate Course Information."
2. Login to the CAPSI program. To do this, click the Username box and begin by entering the username you were sent by the researcher. Then click the Password box and enter your password *If at this point, the computer responds: "Invalid Login", try again. If this response occurs again, it simply means that the instructor has not yet entered your username into the program. Press the escape key to get out of the program and log off the computer. Contact the researcher who will take care of the problem as soon as possible.*
3. If you have difficulty accessing the system at any point, please contact the researcher at XXXXX@cc.umanitoba.ca.

For University of Manitoba students who want to access CAPSI from campus, you can do this from any Windows computer connected to the University of Manitoba Computer Network.

Computer labs suitable for CAPSI access include (but are not limited to):

- 237 Agriculture
- 121 Architecture
- 8 Dafoe (off tunnel near Greenhouse Cafe)
- 334 Education
- 229A Engineering 2
- 107 Fitzgerald
- 182 Frank Kennedy (Continuing Education Complex)
- 107 Human Ecology
- 108, 111, 112, 115 Machray
- 121 St. John's College
- 131 St. Paul's College
- 233 University College

After choosing an open computing area with free workstations, find an unused computer and make sure it is turned on. Then follow these steps:
1. If you do not have an INS account, enter "claimed" in the login box to obtain one.
2. Login to your INS account.
3. When the computer is displaying the Windows desktop, find either the Internet Explorer or Firefox icon. Double click this.
4. When it has loaded, follow the same procedure you would from any other location (see above).

# Using the CAPSI Program

## Main Menu Commands

When the Researcher has entered your username into the program (after you provide consent) and you follow the above procedure, you will see a menu bar at the top of your "home" screen. (We'll call this the "main menu".) You may select any of the items in the main menu (which are fairly self-explanatory) by simply clicking the chosen item. Do not be afraid to experiment with this just to see what will happen.

## Changing Your Password

One of the choices in the main menu is "Change Password." This choice permits you to change your password, which you should do as soon as possible. Your password may be any combination of letters and digits, up to eight characters. No one but you should know your password because an unscrupulous person could use it to get into your account. That person might then find out confidential information about your performance in the study or do any of the functions below (e.g., send out messages, write unit tests, peer review unit tests) in your name, leaving you responsible for any problems he or she may have caused. To change your password, select Change Password from the main menu. A box will appear asking for your current password (see Figure 2).

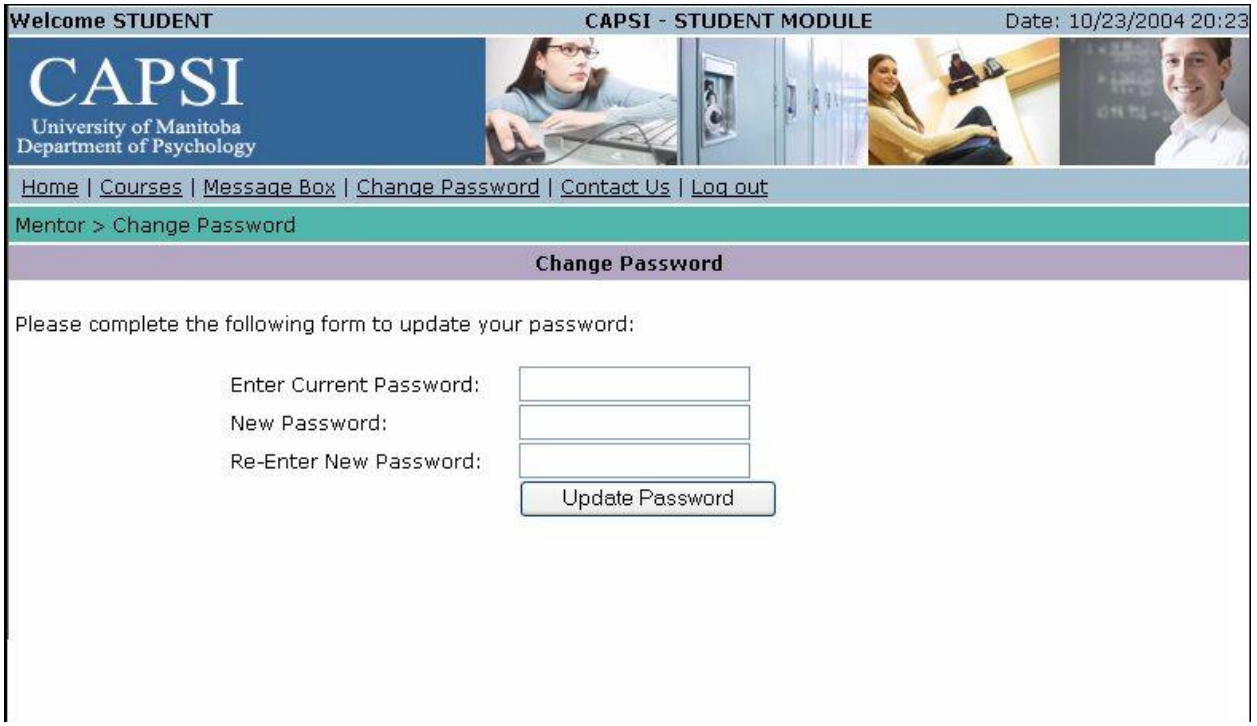


Figure 2. The screen for changing your password.

Type in your current password, new password, and then re-enter your new password in the appropriate fields. Then click "Update Password". Passwords may have numbers, letters, and other characters such as punctuation marks, and it is a good idea to use a combination of these. You may use a mixture of upper and lowercase characters.

**Exiting the Program**

Note that one of the choices in the main menu is "Logout". **NOTE:** *You should always choose "Logout" before exiting the program.* This is especially important if you are logged in at a computer in a public place (e.g., a university computer lab), because the next person who sits down at that computer may access your account.

It is also important, as the program may have important information to give you before you logout; for example, a message from the instructor may have just arrived in your message box (see below).

**Communication with the Researcher through the CAPSI Messaging System**

You can elect to contact the researcher using the CAPSI system; however, the researcher will only contact you via the online recruitment system or the e-mail address you have included in your online recruitment profile.

To send a message to the researcher, click on the Message Box link at the top of the Main screen. You can compose a message to the researcher by selecting "Simister" when prompted to select user in the "To:" field.

**Course Functions**

Participants will use the CAPSI program to check their current progress in the study, peer review unit tests **in courses in which peer reviewing is an option**, download study written material, write unit tests, and view marked unit tests. Select "Courses" from the main menu to perform course functions (the command is plural because you may be enrolled in more than one CAPSI course). You will see your course number (which will be the study name, Noranda), , and which section you are enrolled in. You will also see some choices across from each course listing. To make these choices, click the appropriate box.

**Peer Reviewing**

In CAPSI courses **in which there is a peer-review option**, a component of your participation is based on your peer reviewing unit tests written by other students (your peers) taking the same course you are taking. Because how you write a unit test depends largely on how it is going to be marked or reviewed, the procedure for peer reviewing unit tests is described before the procedure for writing unit tests.

**Setting Your Availability**

All participants will be marked as available to peer-review. You should try to check the system 1-2 times a day to see if you have tests to peer-review. If, for some reason you do not wish to peer-review, you can change your availability to "No" next to where it says "Able to Peer Review". In order to receive full credit in this study, you must be available to peer-review for the duration of the study. The number of times you peer-review will not impact your credits in this study.

**Checking for Unit Tests and Viewing Answers**

If you signed on to be a peer reviewer in courses in which this option is available, you should check for a unit test to peer review at least once during the time 24-hour limit for marking unit tests. You can check for unit tests by clicking the "Review" button. By default, you will be brought to a screen that lists unit tests that

you previously reviewed as well as current unit tests submitted to you to review. To restrict this view either just to current or just to previous unit tests, click the dropdown box at the far right of the screen and then select either "Current" or "Previous." If a unit test has been assigned to you to review, you will see the date and time it was submitted. To see the questions, click "Mark Test". A screen will appear showing the questions. Select a question and click the "Comment" button next to it to view the full question and the student's answer. There is also a window for entering your comments on the student's answer.

**How to Peer Review**

The comments made on individual answers and on the unit test as a whole must be respectful, constructive, and non-punitive. All answers must be complete and correct before a pass result can be given. If the answer to a question is complete and correct, enter a comment and click the box next to "Displays Mastery." A small checkmark will appear in the box. If the question is incorrect or incomplete in some way, do NOT click the "Displays Mastery" button (leave it unchecked). To save the comments that you have typed for a particular answer, and the status in terms of mastery displayed or not, click the "Save Comment" button. This will take you back to the previous screen showing the list of questions on the unit test. You review each question in this way until you have reviewed them all.

To enter a result for the unit test as a whole, scroll down the screen that shows the list of questions. There is a comment box that allows you to enter an overall comment for the unit test. Enter your comments here. Then click the drop-down box next to "Mark". Choose either "Pass" (if "Displays Mastery" is checked for all answers) or "Restudy" (if any answer is marked "No" to "Displays Mastery"). When you are done these steps, click the "Submit Mark" button at the bottom of this screen. If any answer is incorrect, the unit test must be given a restudy. When assigning a restudy, please be explicit about which answers did not display sufficient mastery, and suggest how the answer(s) should be changed in order to demonstrate mastery. When assigning a pass result, let the student know about anything that he or she did particularly well.

You may view any unit test that you have marked by clicking the "Review" button, and then selecting "Previous" on the drop-down box in the top right of the screen. This screen will also show you the submission date and time of any unit tests that you were late in reviewing. Thus, if you have been penalized points for late reviewing, you may check this screen to find out why.

**Writing Unit Tests**

To write a unit test on your current unit, click the "Test" button for the course. A box will appear advising you that there is a time limit for the unit test and will ask you to confirm that you want to start the unit test now. **Remember***: when writing a unit test you have a one-hour time limit in which to submit the unit test and receive credit.* You may check the amount of time remaining by clicking the line that says: "Click here to view current time" on the initial screen listing the unit test questions

(which you will return to each time you finish answering an individual question). When you get the unit test, you will see the first part of the selected questions on the screen (see Figure 7). You may answer the questions in any order by clicking the "Answer" button next to the question. After you select a question, you will see a window in which to type your answer (see Figure 8)

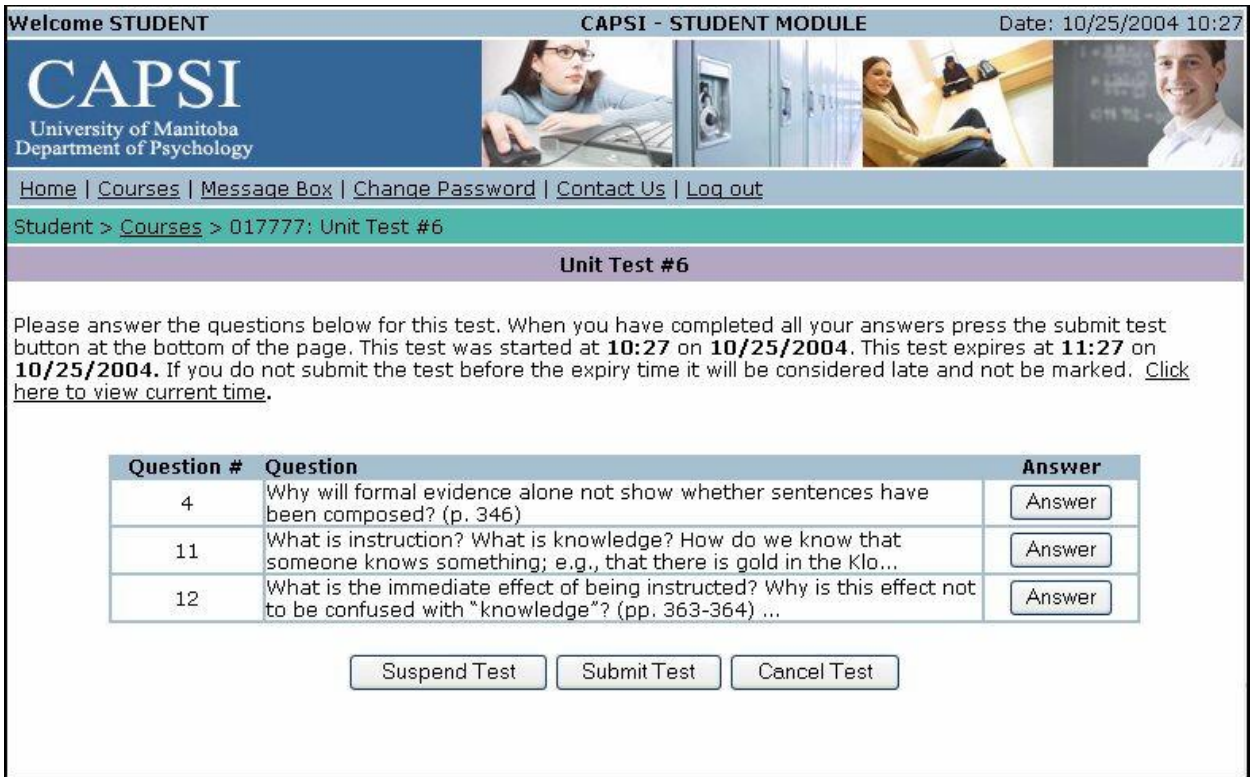


Figure 7: An example screen showing a unit test that has been received.

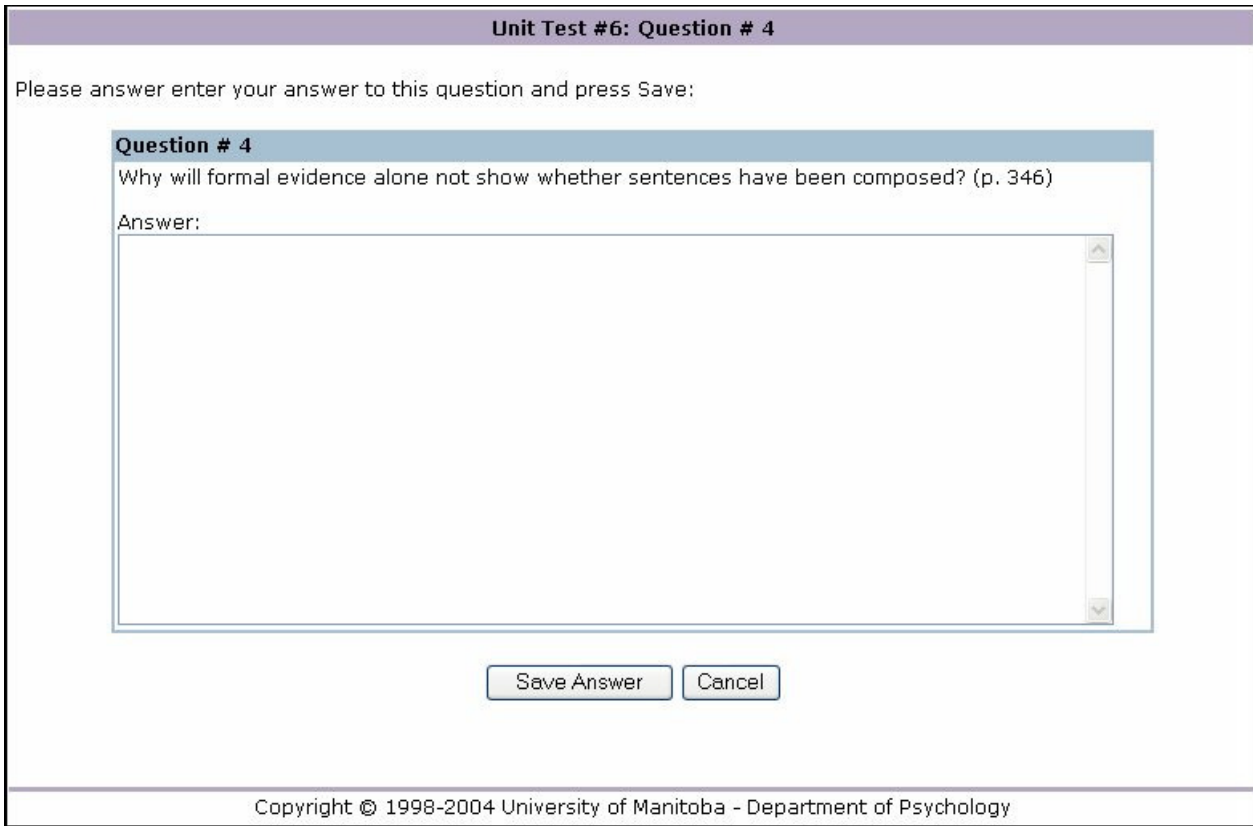


Figure 8: An answer box for a unit test question has been opened.

When you are finished typing your answer, click the "Save Answer" button at the bottom of the screen. After you have answered all the questions and have saved all of them, click the "Submit Test" button to submit the unit test. Alternatively, you can click "Cancel Test" or "Suspend Test". Cancelling a unit test should be done if you discover that you were not adequately prepared for the unit test. It is the same as giving yourself a "Restudy," and you will not be able to write a new unit test on the unit until at least one hour restudy time has elapsed. Suspending your unit test should be done only in an emergency situation. This option will not re-set the timer, but it will allow you to save your unit test and re-start it after the emergency is over. If the unit test is submitted after the deadline, your instructor will have the option of marking or not marking it, depending on the nature of the emergency.

**Writing Exams**

There are no exams in this study.

**Viewing a Marked Unit Test that You Wrote**

To view a unit test or exam you have written after it has been marked, click the "Marks" button on the course menu. You will then be able to see if you passed the unit test and the comments the reviewer(s) made on it.

Questions for Instructions

1. List three ways in which you can contact the course instructor.
2. What password does the computer originally assign to you? How do you change that password so that no one other than you knows what it is? Why should only you know your password?
3. After you log into CAPSI, how do you: (a) view your current standing in the course; (b) volunteer to be a peer-reviewer starting on a given date and time; (c) write a test on your current unit?
4. What must a student do in order to be selected to peer-review for a given test? What must a student do in order not to be selected?
5. If you have volunteered to be available to peer-review, how do you: (a) know that a test has been submitted to you; (b) read the test; (c) make comments on each question; (d) comment on the test as a whole; (e) submit the marked copy of the test
6. Describe the feedback peer-reviewers should provide on tests that they mark.

The materials that you are about to read are excerpts from Triumph Over Shyness, Conquering Shyness and Social Anxiety (2010), used with permission and were provided to the lead experimenter by Dr. John Walker.

## Unit 1: Shyness and Social Anxiety: the Basics

*Shyness* refers to a tendency to withdraw from people, particularly unfamiliar people. It is a normal personality trait. This means that everyone has some degree of shyness – some people have a lot, some have a little, and most have an amount somewhere in between.

*Social anxiety* is closely affiliated with though not identical to shyness. We should start by defining *anxiety*. Anxiety is an uncomfortable internal state (that is, something people feel inside) usually associated with uncertainty or the unknown. Anxiety is an emotion. Anxiety is a lot like *fear*, but fear is what we feel when we *know* what we're afraid of. When someone points a gun at your head you don't feel anxiety. You feel fear! You know exactly what it is that is causing your heart to race, your knees to shake, and your life to flash before your eyes. When you exit the door of your house to take out the garbage at night you may feel anxious wondering if someone is lurking in the shadows waiting to attack you. This is anxiety, not fear, because you don't know whether something bad is going to happen; you think it is a possibility, but you can't be sure. So you feel anxious about it. (If you live in a major metropolitan area with lots of crime, this may not be such a good example, but you get the point.) Anxiety is an emotion you feel when you believe there *might* be a threat; fear is an emotion you feel when you know there *is* a threat.

Social anxiety refers to the special kind of anxiety or discomfort you may experience when you are around other people. Usually, social anxiety is associated with concerns about being scrutinized. When you are around other people and you worry about what they think of you and you feel uncomfortable, you are experiencing social anxiety. As you might imagine, the notion of social anxiety overlaps tremendously with shyness, as well as with other concepts such as *self-consciousness*.

There are some differences between the concepts of shyness and social anxiety, at least in the ways those of us who study behavior and mental health use these terms. Shyness is something that is often inferred by observing behavior. For example, psychologists may videotape people at a party, then review the tapes and use a stopwatch to see how long it takes each person to approach a stranger and join or initiate a conversation. They may infer that persons who are more reticent to do this are shyer than those who jump right in. In fact, the researchers wouldn't know anything about what the partygoers were thinking or feeling –

in order to know this, they'd need to ask them. But psychologists observe and measure people's behaviors to make inferences about their degree of shyness.

**Anxiety Is a Normal Response: How Much is Enough?**

Anxiety is a normal response to situations that are stressful or involve uncertain threat. It serves as a signal that says, "Hey, you! Pay attention! Be careful! Something might go wrong." This is not a bad thing. If we had no anxiety at all, we'd all be so mellow that we'd probably never get off the couch. (Okay, maybe just to eat.) Without anxiety, we'd go boldly where no man or woman should go. We'd be oblivious to potentially dangerous situations – we'd drive through red lights, we'd spend more money than we have, we'd go mountain climbing without the proper gear. (Having grown up in Manitoba, Canada's answer to Kansas, we really have no idea what a mountain looks like, much less an inclination to climb one without gear. Or with gear, for that matter.) Anxiety can be a motivator, if it's not so overwhelming that it paralyzes. If we had no anxiety, we'd never be motivated to try harder at play, we'd never complete our assignments at work. A little bit of anxiety, when it serves to spur us to do better, is a good thing. A lot of anxiety, however, is not. How much anxiety is enough?

That's a very difficult question to answer. Anxiety that is neither persistent nor overwhelming nor intrusive (it doesn't get in the way of the things you want to do) is enough. In the case of social anxiety, it's enough if it helps you be aware of and attentive to the opinions and feelings of others. It's enough if it contributes to your desire to achieve, to do well not only in your own opinion but also in the opinion of those around you. It's enough if it leads you to prepare appropriately for a professional conference by learning beforehand who the other participants will be, and memorizing the names of their spouses and children so that you can make them (and you) feel more comfortable.

But if social anxiety leads you to worry for weeks ahead of time about the conference, that's too much. If your child can't sleep for three nights prior to presenting a five minute oral book report at school, that's too much. If you are not able to concentrate when you're in a group of two or three people, that's too much.

**Social Anxiety Disorder: A Hidden Problem of Underestimated Magnitude**

It is important for people who suffer with social anxiety disorder to know that they are not alone. Far from it! Studies show that at least one in twenty people has social anxiety disorder. You look around and say, "I don't see that many people who are socially anxious and avoidant! How can that be?" The answer is that social anxiety disorder isn't a condition that is easily visible to others. It is not like a broken leg, where people wear casts and use crutches. You look around you and you don't see it. But it's there.

Social anxiety disorder is not fatal, but it can be crippling. Medical researchers talk about *quality of life* to help describe the impact of a health problem, and anxiety disorders are known to have a major impact on a person's quality of life. For example, someone with social anxiety disorder may be unable to work and socialize with peers. Now, the same may be true for someone with severe heart disease. And while the reasons for the disability may differ –the person with social anxiety disorder is too anxious to interact with others and avoids group situations, whereas the person with heart disease is too physically weak to work or leave the house – the reduction in quality of life is similar. When viewed from this perspective, it becomes easier for people who aren't familiar with social anxiety to understand the tremendously negative impact it can have on those who do suffer from it.

**Types of Social Anxiety**

There are several varieties of social anxiety, differentiated by the kinds of situations that bring it on. For example, many people experience *public speaking anxiety* whether they are proposing a toast at a small dinner party or at a wedding reception of 300 people. Others experience t*est anxiety*, where the fear of failing interferes with their ability to study for and perform during the test. *Sports performance anxiety*, where an athlete's fear of performing poorly or making a mistake actually contributes to these feared outcomes, is yet another form of social anxiety. And then there's *dating anxiety*, which is what you'd expect it to be. In fact, so many situations can elicit social anxiety, it would be silly to give them all special names. Instead, researchers have found it useful to classify forms of social anxiety by category.

One of these categories refers to *contingent* and *noncontingent* encounters; for our purposes, we will use the less technical terms *performance* and *interactional*. *Performance* encounters are those where a person is doing something in front of others, usually in a rehearsed fashion, and there is no expectation that the person will need to respond to the audience . An example of this would be the class valedictorian who gives a speech at graduation. The speech is written out in advance, and her task is to read it with appropriate pauses and intonations. Although she may need to respond to the audience – for example, wait for the laughter to subside after a joke before moving on – most of the performance is predetermined.

In contrast, *interactional* social encounters are those where a person must talk, listen, and react appropriately to what others say and do. An example would be a man having a conversation at a party. In this situation, the man needs to initiate a conversation, join in, or respond. He then needs to be aware of the other person's responses, and engage in a process of give-and-take that

involves attention to verbal and nonverbal cues. In general, interactional social encounters are more demanding, in terms of using more of our mental abilities and social skills, than are performance tasks. Interestingly, however, more people report being afraid of performance encounters such as public speaking than interactional encounters such as conversing at a party.

**Am I too socially anxious?**

The answer to this question requires that you ask yourself, "Does my social anxiety make me feel nervous or uncomfortable a lot of the time? Does my social anxiety interfere with things I want to do now or in the foreseeable future? Does it prevent me from doing things? Does it keep me from enjoying pleasurable activities? Does it lead to me being alone and lonely?" If you answered *yes* to any of these questions, you may have social anxiety disorder. The good news is there is help.

In addition to the difficulties experienced by those with social anxiety, some may also have other conditions in addition to their social struggles. Those with social anxiety disorder may also have substance use/abuse problems, marital problems, depression, medical problems, or other anxiety disorders. The program you are using focuses on ways to help social anxiety, but does not address these other conditions. If you, or someone you know may have other problems in addition to social anxiety, we suggest that you consult a professional. Students of the University of Manitoba can access free service at either the Student Counseling Centre (4th floor University Centre) or the Psychological Service Centre (162 Dafoe, near Greenhouse Café). The Psychological Service Centre is also open to the public.

Unit 1 questions:

1. What is the difference between *shyness* and *social anxiety*?
2. Provide an example illustrating the difference between *shyness* and *social anxiety*.
3. How can you tell if you need help for social anxiety?

4. How could you help a friend determine if they have "too much" anxiety?

5. List 2 types of social anxiety and provide an example of each.

6. Provide an example from your own life where you were uncomfortable in a social situation. Is your example an example of shyness or social anxiety?

7. Give an example of performance anxiety and an example of interactional anxiety.

8. Is *performance* or *interactional* anxiety more salient to college students? Why?

9. How could this unit be improved (e.g., what was unclear, additional information that would be helpful, other suggestions)?

**Wednesday reading**

Unit 2a- Understanding why Anxiety persists and what to do about it

Old habits, particularly old ways of thinking, die hard. While understanding where these habits and thinking patterns come from can be helpful, mere understanding isn't enough. Nor is it always necessary --sometimes we just can't figure it out. And blaming people–parents, teachers, siblings, or peers–for how we've turned out will not lead to change in ourselves. In order to tackle social anxiety, you need to learn new ways of relating to people, new ways of behaving around others, and new ways of thinking about social situations. And once you've learned these things, you need to practice them again and again. The rest of the units in this program will provide you with some skills to help overcome social anxiety.

**What kinds of treatment are there for Social Anxiety?**

Talk Therapies

These approaches involve a client and therapist working together. There is (or at least there should be) a solid theoretical basis for how the talk will lead to improvement in the condition(s) being addressed. The therapist's role is usually to facilitate change in the client's way of thinking, feeling, behaving, or approaching the problem. What goes on during therapy can vary markedly depending on the kind of therapy, and often on the style or personality of the therapist.

Cognitive-Behavioral Therapy

The form of psychological treatment that has the widest scientific support in treatment of anxiety disorders is called cognitive-behavioral therapy (CBT). CBT focuses on understanding and changing thinking patterns (cognition) and behavior patterns that are involved in anxiety problems. When you change your thinking and behavior, emotional changes often follow. This approach to dealing with common problems including pain, anxiety and phobias, depression, relationship problems, and substance abuse has been evolving over the last 40 years. In CBT, approaches are developed to address specific problems; in fact, different forms of CBT have been developed for each anxiety disorder, including social anxiety. CBT for social anxiety requires the therapist to assess the client's problem, educate the client about the problem, and work with the client to develop strategies that will help overcome anxious thoughts, physical symptoms, and anxious behaviors. This is the type of treatment you will come across during this program.

**Other Forms of Therapy**

While hypnosis is sometimes used to treat anxiety and phobias, we are not aware of any studies that show it works for social anxiety.

Biofeedback is another form of therapy sometimes suggested for treatment of anxiety and phobias. Biofeedback involves the use of monitoring devices to give persons information about their physiological functioning.

**Medication**

Medication can help reduce social anxiety and severe shyness. Some drugs are useful only for performance anxiety (public speaking, or playing a musical instrument in front of an audience) whereas others are more useful for treating generalized social anxiety (the kind that occurs in a broad array of social situations, often those involving interactions with others). Medication is often used in conjunction with psychological treatments, and is rarely a stand-alone long-term solution to coping with social anxiety.

**Four Steps to Overcoming Social Anxiety**

You need to do four things to overcome your social anxiety:

5. Understand your anxiety pattern
6. Change how you handle your thoughts in anxiety-provoking situations
7. Change your anxious behaviors.
8. Accept anxious thoughts and feelings as you move toward your goals in life.

If you make a commitment to follow these four steps, you will dramatically reduce your social anxiety. For any kind of program to be successful – whether it's self-help, individual therapy, or group therapy – you must make it a priority. The first step is to read through the program quickly (you don't have to do the exercises the first time through) and decide if you are willing to commit to it. If you are, the next step is to follow through and spend time on the program every day for two or three months. This is a significant commitment and may require that you cut down on other activities, at least temporarily.

**Understand your pattern of social anxiety**

Anxiety is a normal human emotion, the emotion that motivates humans (and animals for that matter) to keep themselves safe. One aspect of the protective anxiety system is the *fight or flight response*. When we encounter a danger signal, the body automatically prepares for self-preservation: We prepare ourselves to either defend against an attacker (*fight*) or to flee (*flight*). A related part of this protective system is to *freeze* in a dangerous situation so as not to attract attention. Many of us have seen a rabbit or a deer freeze when it becomes aware that there are humans - potential predators - around. In a stressful social situation some people find themselves freezing, unable to say or do anything.

While the anxiety response involves many bodily systems acting in a coordinated fashion, it is helpful to consider separate aspects of the response. In the pages that follow we will consider three systems involved in the anxiety response: anxious physical reactions, anxious thoughts, and anxious behaviors.

**Anxious physical reactions and anxious thoughts**

You often first become aware of anxiety by noticing your physical reactions. You may notice your heart racing or your face flushing. The level of activity in your stomach and the rest of your gastrointestinal (GI) system may increase, creating discomfort in your stomach or a feeling that you need to have a bowel movement. You may perspire excessively. As your level of bodily arousal increases, you become especially watchful for signs of danger or threat. You may feel that your body is betraying you and making it more difficult to cope with anxiety. People who experience social anxiety may be especially concerned about symptoms that others may notice: blushing, excessive perspiration, shaky hands, or a noisy stomach. Anxious thoughts: A powerful influence on emotions and behaviors.

In addition to the uncomfortable physical symptoms, a major aspect of anxiety is what we *think* about a situation. When you perceive a social situation as difficult, threatening, or anxiety provoking, this assessment will color not only your experience during the interaction, but your perceptions of it *before* and *after* the event, as well.

*Before a situation*: Your thinking may be marked by anticipatory anxiety – anxiety before the situation actually occurs – about what will happen and doubts about whether you will be able to handle it. You may visualize the situation turning out badly and imagine you will feel embarrassed or humiliated. These worries are often intrusive; that is, they come to you when you are trying to think about something else.
*During a situation:* The anxiety may peak as the interaction starts, or it may build gradually. Concentration may be difficult; rather than focus on what other people are saying, you may focus on your anxious thoughts and physical reactions.
*After a situation:* You are usually relieved to be finished, and the level of physical symptoms often decreases. After the initial relief, though, thoughts turn to how you handled the encounter. When you are having difficulty with anxiety, your evaluation of your performance is often negative.

**Anxious behaviors: Coping strategies that may do more harm than good**

Certain behaviors are emblematic of social anxiety, two of the most common being *avoidance behavior* and *escape behavior*.

*Avoidance behavior* manifests itself when you try to stay away from situations that make you anxious. Avoidance behavior is a useful strategy when it keeps you out of dangerous situations like a midnight stroll in Assiniboine Park with dollar bills taped to your jacket. But when your perception of which situations are dangerous and should be avoided includes social gatherings, educational sessions, and business meetings, this is no longer an adaptive strategy. It is at this point that avoidance dominates your life. Avoidance also prevents you from learning ways to challenge social anxiety and overcome the problem.

Another common anxiety symptom is *escape behavior*. Escape behavior involves leaving an anxiety-arousing situation. If you have trouble conversing with certain types of people, you might escape by having a few words and then giving an excuse about needing to leave to finish something. If parties make you anxious, you might escape by pretending to have a family emergency and leaving the party ten minutes after you arrive. People also engage in *safety behaviors* intended to help them more comfortable in challenging social situations. Examples of safety behaviours include taking a friend with you to an appointment, or checking over and over again to ensure that your presentation is in your backpack.

In difficult social situations, how much are you distressed by the following anxious thoughts?

| | Not at all | A little bit | Moderately | Quite a bit | Extremely |
|---|---|---|---|---|---|
| I won't know what to say | | | | | |
| My mind will go blank | | | | | |
| I'll stumble over my Words | | | | | |
| I will make a mistake when I speak | | | | | |
| I will be physically Awkward | | | | | |
| I will do something to embarrass myself | | | | | |
| People will see that I'm nervous | | | | | |
| People will watch me or stare at me | | | | | |
| People will have a negative impression of me | | | | | |
| My nervousness will make people uncomfortable | | | | | |
| People won't want to be around me | | | | | |
| People won't like the way I look | | | | | |
| People will think I'm Foolish | | | | | |
| People will think I'm too Quiet | | | | | |
| People will think I'm Boring | | | | | |
| People will laugh at me | | | | | |
| People won't like me | | | | | |
| Other: | | | | | |
| Other: | | | | | |

**How much do you avoid the following social situations?**

| | Never | Seldom | Sometimes | Often | Always |
|---|---|---|---|---|---|
| Making eye contact with someone I don't know well | | | | | |
| Speaking before a large group of people | | | | | |
| Speaking before a small group of people | | | | | |
| Being the center of attention | | | | | |
| Attending social gatherings | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| in general | | | | | |
| Going to a party | | | | | |
| Eating in public | | | | | |
| Speaking to people in authority (supervisor,teacher) | | | | | |
| Speaking with someone I'm attracted to | | | | | |
| Returning items to a store | | | | | |
| Writing in front of other people | | | | | |
| Asking a question in a class or at a meeting | | | | | |
| Inviting a family member to visit my home | | | | | |
| Inviting a non-family member to visit my home | | | | | |
| Calling someone I know well on the phone | | | | | |
| Calling someone I don't know well on the phone | | | | | |
| Asking someone for Information | | | | | |
| Disagreeing with Someone | | | | | |
| Other: | | | | | |
| Other: | | | | | |
| Other: | | | | | |

**Accepting anxious thoughts and feelings**

Since anxiety is an uncomfortable and even painful emotion, some people have the impression that the best life would be a life with no anxiety. A more realistic view is that emotions such as anxiety, sadness, happiness, pleasure and anger are essential in providing direction in people's lives. Anxiety – in moderation – is normal, healthy, and can help motivate people to make choices and meet goals. Setting goals will keep you motivated to overcome anxiety. In approaching this task, it is important to put your fears aside and imagine a life unhampered by fear. You can worry later about how you will reach your goals and dreams, but for now, focus on deciding what they are.

As you choose goals, be as *specific* and *concrete* as possible. We have listed strong examples and weak examples to guide you. Include some goals that involve overcoming anxiety in challenging social situations. Do not restrict yourself, however, to these goals, as this would give an unbalanced view of what you hope to achieve.

- Long-term goals

  **Strong example.** *"Take a winter vacation in the Bahamas once every two years."* This is a strong example because it is specific and concrete: you can tell exactly what you want to do and you'll know when you have done it.

  **Weak example.** *"Be happy and never feel anxiety again."*
  This is a weak example for two reasons. First, it is not specific and concrete - how can you tell when you've actually achieved it? What do you have to do to be

happy? Second, anxiety is a normal, healthy part of life that everyone experiences at one time or another. It is not reasonable to expect to live completely free of anxiety. On the other hand, it is realistic to live a life in which anxiety is a minor factor.

- **Medium-term goals**

  These are goals you can imagine accomplishing *in the next year*. They may be steps on the way to your long-term goals. They may be activities you have avoided because of excessive shyness or anxiety. Once again, be very specific and concrete.

  **Strong example.** *"Start a course in medical terminology at Wilson College in the spring."*
  This is a strong example because it is specific and concrete – it states what you want to study and where you plan to study it – and may move you toward your long-term goal of an interesting career. The wording of the goal describes what you will have to do to attain it and makes it easy to tell when you have achieved it.

  **Weak example.** *"Go back to school."*
  This is a weak example because it is not specific enough. What school do you mean? What course do you want to take? When are you planning to do it? We often don't get around to working on vague goals.

- **Short-term goals**

  These are goals you can work on *in the next three months***.** You may want to take one of your medium-term goals and break it down so that you can start to work on parts of it right away. Think of at least eight short-term goals you can start in the next three months. Be sure to set goals that will move you closer to your medium-term goals. Make your short-term goals specific and practical.

  **Strong examples.**

  *"Take a tai-chi class at the community center next month."*

  *"Eat lunch at Bistro Gardens with Steve."*
  *"Ask a question at the staff meeting at work."*
  These are strong examples because they are manageable enough to work on soon and specific enough so you know what you should be doing and when you have done it.

  **Weak examples.**

  *"Get some exercise."*

  *"Go to a restaurant."*

  *"Speak up more and not feel nervous."*
  These are weak examples. None of them is specific enough. What sort of exercise do you want to do? Where will you do it? What restaurant do you want to go to? Do you want to go alone or with someone? In what setting do you want to speak? Again, the goal of not feeling nervous is unrealistic. If you insist that your success be defined by doing things without any anxiety, you will probably feel you have failed. Doing things *in spite of anxiety* and managing the feelings are more reasonable goals. As you meet these goals, anxiety will decrease with continued practice.

Unit 2a questions

1. What treatment is used in this program? Why do you think we chose this treatment?
2. Identify the 4 steps to overcoming social anxiety
3. List 4-5 physical symptoms of anxiety
4. In what ways is the social anxiety pattern normal? Abnormal?
5. Why do some common coping strategies do more harm than good?
6. What is the difference between good, strong goals, and weak goals?
7. Give an example of a good long term goal and a weak long term goal. What makes one goal good and one goal weak?
8. Give an example of a good short term goal and a weak long term goal. What makes one goal good and one goal weak?
9. How could this unit be improved (e.g., what was unclear, additional information that would be helpful, other suggestions)?

Unit 2b-Working with your thoughts

Negative thinking is at the heart of social anxiety. Learning to handle these negative thinking patterns takes consistent practice, but this work can pay off with a dramatic decrease in anxiety. In this unit we will discuss two aspects of anxious thinking – the focus of your thoughts, and the content of your thoughts.

People with high levels of self-consciousness spend a great deal of time focusing on themselves rather than on the world around them. They focus on their feelings, thoughts, and actions, and on trying to guess how others are reacting to them.
Excessive self-focus causes several problems:

- It increases your anxiety level. Having someone watch and criticize your performance is distracting and stressful, even if that someone is you.
- It takes your attention away from other people and from what is going on in the world around you. Excessive focus on your thoughts and feelings may cause you to miss important information from the conversations and activities in the world around you.
- If you are distracted, others may assume you aren't interested in them, and respond to you less warmly.

**Focusing more on others and less on yourself**

An important way to reduce social anxiety is to learn to accept the anxious feelings and shift your attention from yourself to other people. Each of us has some degree of control over his or her attention, and chooses to focus on some aspect of the situation he or she is in.

Think of listening to a piece of music. You can focus and listen especially carefully to the drums, the horns, or the piano. You may have to keep reminding yourself to focus on the piano. Other aspects of the music may capture your attention for a while (listening to the drums when they are prominent) but you are able to keep your attention coming back to the piano. If you practice regularly, you become more skillful at focusing and you can describe things about the piano parts that you did not hear before.

Your attention works the same way when you interact with people. If you practice focusing your attention on the other person rather than yourself, you will learn to be more attentive. It is also helpful to focus on your values concerning how you would like to treat people. Many people find that focusing on the value of showing interest and kindness to other people (whether or not they are showing interest and kindness to you) is a very powerful way to interact with people. Here is a process you can follow:

- When you are feeling anxious, remind yourself to focus on others.
- Make it your goal to listen carefully to what the other person has to say.
- Think about how that person feels about what he or she is saying: Is this a situation involving strong emotion? Is this important information for that person? Or is he or she just passing on routine information?
- Often your attention will move back to yourself – especially when you are having an anxious thought or physical sensation. Don't worry about trying to stop these feelings from coming. Just accept them, and direct your attention back to the other person.
- Don't spend much time planning or rehearsing what you will say next. This will distract you from listening to the other person's side of the conversation. If you listen carefully, your own ideas about what to say next usually come quickly. (We will be saying more in later chapters about what to say in challenging situations.)
- Don't try to figure out what others are thinking about you during the situation. (This is called *mind reading* – something most of us can't do!) Focus on showing interest and kindness to them.

Use this approach in one-on-one interactions, with groups of people, and at meetings. Focusing your attention on others can be difficult at first. Keep at it, because you will improve with practice.

A basis of excessive self-consciousness is the belief that other people are tremendously interested in your every action and are waiting to criticize you. In reality, other people use most of their time and attention dealing with their *own* lives! They have a small amount of time to pay attention to you. If they happen to see that you are nervous or uncomfortable, they may think about this for a short time and then they have to get on with their personal concerns. They are unlikely to go through the day remembering an incident that has happened to you, even if you do. Most reasonable people are not terribly critical of others. If a person is very critical, he or she may not be the kind of person you want to have a relationship with anyway. If someone *does* look your way when you are looking and you feel comfortable with that person, it is considered reasonable to smile briefly.

**Mindfulness: Focusing on the Present Moment**

Many people with social anxiety also have difficulty with excessive focus on past hurts and disappointments or on future threats. They are so focused on these concerns that there is little energy left for living in the present – the place where life really happens. Influential writers such as Jon Kabat-Zinn emphasize the negative effects of living our life so distracted from present moment and suggest the benefits of working every day on a different approach to experience called mindfulness. "Mindfulness means paying attention in a particular way: on purpose, in the present moment, and non-judgmentally. This kind of attention nurtures greater awareness, clarity, and acceptance of present-moment reality. It wakes us up to the fact that our lives unfold only in moments. If we are not fully present for many of those moments, we may not only miss what is most valuable in our lives but also fail to realize the richness and depth of our possibilities for growth and transformation." (Kabat-Zinn, 1994, p. 4)

**For example:** You may be going to a family gathering and focus on how quiet you were at the last gathering or how someone made a comment to you that you found upsetting or disappointing. You may wonder whether the people at the gathering will be recalling

those same experiences. Having memories about past hurts is normal and you do not need to struggle with these memories. At the same time you will be more effective in your interactions if you keep returning your focus on the present moment. What interesting stories are people telling? What are the sights and sounds of the meeting? How is the food? The music?

In focusing on the present and on the world around you (rather than focusing mainly on your own thoughts), you will notice things about the gathering you enjoy and things you do not enjoy. But if you are fully present you will get more out of the experience and come across to other people as more present rather than distracted. Letting go of the need to judge every experience and focusing on accepting our experiences and the world as it is, can leave us more time and energy to participate in the experience.

The idea of learning to change your focus of attention is new to most people. The best way to see if excessive self-consciousness or concern about criticism and rejection are problems for you is to think about challenging situations you have faced in the past. Use the worksheet below to think about situations where this may have been a problem.

Come up with a challenging situation you've recently experienced:

_____

Any problems with excessive self-consciousness or concern about criticism or rejection?

_____

IF YES, what could you focus on instead?

_____

**Dealing with anticipatory anxiety**

The strategy of focusing your attention on the other people in a social situation can be very effective for handling the situation itself. However, you may find yourself struggling with a great deal of anxiety in anticipation of a challenging encounter. For example, you may worry for weeks in advance about the annual company holiday party. In many cases this *anticipatory anxiety* lasts much longer and creates more stress than the situation itself.

Ask yourself: "How much time have I spent worrying about the situation?" and then, "How much time have I spent planning for the situation?" Typically people answer that they have spent many hours worrying and little or no time planning. Shifting this balance from worrying (which accomplishes nothing other than make you more anxious) to planning (activities in advance of the situation that may help it go more smoothly) can make the difference between feeling overwhelmed and well prepared.

**Trap: Avoid overplanning**

Although problem solving is very useful, some people spend too much time in the planning phase. An example would be spending eight hours working on a 20-minute presentation. Be sure to think through how much planning time is necessary; good planning is often done in a short period of time. Do not spend many hours planning for every possible catastrophe. This is just another type of worry.

**Healthy and unhealthy distraction**

When you are anxious, distracting yourself (thinking about something else) can help manage the anxiety. But distraction can be healthy or unhealthy, depending on how you use it.

Here are some examples:

- You have studied all day for tomorrow's exam and are well prepared, but still worried about how the exam will go. *Healthy distraction:* You plan to take a break and see a movie rather than tire yourself out with more studying. *Unhealthy distraction:* You study until 2 a.m., awake exhausted, and are less able to concentrate.
- You have been worrying about an upcoming meeting with your supervisor and feel nauseated. *Healthy distraction:* You get out a piece of paper and spend 15 minutes making notes covering the issues you'd like to discuss. You then move on to the rest of your work for the day. *Unhealthy distraction:* You arrange to meet some friends at a bar. One drink becomes five, and you come to work the next day unprepared for the meeting and with a hangover to boot.
- You are on deadline for an assignment and don't think you can get the work done in time. *Healthy distraction:* You have an hour before you leave for a meeting so you decide to review one of the background papers for the assignment. *Unhealthy distraction:* You take a long coffee break before the meeting and put off the assignment until tomorrow.

Healthy distraction often involves focusing on an activity that will be helpful to you in the long-run (consistent with your values and goals). Unhealthy distraction may involve activities such as excessive work, alcohol use, watching television, or sleeping.

## The content of your thoughts

### Thoughts, beliefs, and assumptions

Scientists who spend their time thinking about thinking (nice work if you can get paid for it) cite thoughts, beliefs, and assumptions as important mental processes that relate to anxiety.

*Thoughts* comprise the stream of mental events we experience as we go through the day. Many of our thoughts come as words, but thoughts can also come as images. You may say to yourself, "I'm so clumsy – I'll spill my drink," or you may picture yourself spilling a drink all over your white linen suit. Most thoughts are neutral ("I think I'll finish reading this chapter before I take a break"), but anxious thoughts are often negative ("If I take a break before I finish this chapter, I'll never get back to it and I'll be shy for the rest of my life!").

*Beliefs* are the ideas and views that lie behind our thoughts. While most of us are aware of our religious and political beliefs, we may not be aware of some of our beliefs about social encounters. For example, some people believe they are unattractive. Others believe that people are always watching them and waiting to criticize their behavior. A small cadre of beliefs may form the basis of a multitude of thoughts. For instance, if you believe that others are always watching you, you will have many thoughts related to this belief when you are around other people.

*Assumptions* describe ideas about how one event relates to another in your picture of the world. Often these can be described using "IF...THEN...." statements. An example of an anxious (negative) assumption is, "IF I look nervous, THEN people won't like me." An example of a non-anxious (positive) assumption is, "IF I look nervous, THEN people will accept me the way I am." An assumption often involves a prediction about the results of an action.

By paying attention to your thoughts you can often identify the beliefs and assumptions that lie behind them. Here are some examples:

| Anxious thoughts | Related beliefs and assumptions |
|---|---|
| Everyone will look at me when I enter the room.<br>People will see how anxious I am.<br>What if people think I look stupid? | People will watch me to see if I do something they can criticize or laugh at. |

How do you change these negative thinking patterns? There are three steps in the process:

**Step 1: Identifying anxious thoughts**

You've already started to *identify* your anxious thoughts by completing the worksheet in Chap. 6 (Fig 6.3). When you're beset by anxious thoughts, you tend to see things as more negative than they really are. Before the event, you may make negative predictions about how other people will respond to you, how you will perform, and how events will turn out. After the event, you may make negative evaluations of how you handled it. Certain patterns of anxious thinking are associated with social anxiety. Being aware of these patterns can help you identify them.

- **Perfectionism.** Most of us like to do things well, but some people are so focused on doing things perfectly that it causes a great deal of distress. If you are a perfectionist, you may spend much more time on an activity than is warranted, taking time away from more rewarding pursuits. Perfectionism can be particularly troublesome if someone is watching you. You may be so worried about making a mistake that you can't perform well. The most reliable way to avoid mistakes is not to do anything; many perfectionists become expert procrastinators who accomplish very little. Creative people allow themselves to make mistakes and learn from their mistakes as they go along.

- **All-or-nothing thinking.** Related to the problem of perfectionism is all-or-nothing thinking. When you think this way, if a social encounter does not go the way you wanted, you see yourself as a complete failure. A more constructive approach is to see where you have succeeded and consider where you can do even better in the future.

- **Catastrophic thinking.** This involves taking a disappointing experience and thinking it into a catastrophe. If you do not get that job offer (close that sale, get that date), you will never have another chance. In reality, most people have to put in a good number of job applications before they receive an offer.

- **Overestimating the danger in a situation.** Most of us know people who worried excessively about failing each exam despite their history of getting strong marks in all their courses. Likewise, a socially anxious person may expect social encounters to turn out badly, even though they often turn out well.

- **Underestimating your ability to cope with a difficult situation.** You may feed your anxiety by telling yourself that you will not be able to cope with a difficult situation. In reality, most people -including you- rise to the occasion when faced with challenging situations.

- **Interpreting anxiety as a sign of failure.** You may interpret your anxiety in a difficult situation as a sign of failure. Anxiety is a normal emotion. If you set out to

accomplish a goal and achieve it, this is a success whether or not you were anxious during the activity. When climbers reach the summit of Mount Everest and then descend, they often feel sick and physically exhausted afterward. We do not see it as less of an accomplishment because of their emotional response.

- **Mind reading**. You may leave a difficult social situation thinking that other people reacted negatively to you. You may have seen a subtle sign that you interpret as a negative reaction -- a frown, a glance away, or a certain look in the eyes. Realistically, it is very difficult to know what another person is thinking without asking. Even couples who have known each other for many years often have to ask to find out what the other is thinking.

    - **Negative bias in thinking about yourself.** You may emphasize your weaknesses and minimize your strengths. You focus on your negative experiences rather than the positive ones. You may use negative language such as "I'm a failure" or "I'm a loser" in describing yourself. Negative language is discouraging and tends to distract people from problem solving.

**Step 2: Challenging anxious thoughts**

Once you have identified your anxious thoughts in a difficult social situation, the next step is to *question* how realistic and helpful they are. Ask yourself:

- *How realistic is this thought?*
- *What evidence do I have for this thought?*
- *Are there other ways of looking at this situation?*

**Step 3: Develop coping thoughts:**

Developing *coping thoughts* follows naturally from questioning anxious thoughts and the resulting discussion you have with yourself. *Coping thoughts* help you see difficult encounters more realistically and suggest ways you can handle them. This is different than just using positive thinking. While coping thoughts are encouraging in tone, it is especially important to be realistic in sizing up the situation. For example, unless you are fabulously good-looking, rich, or a remarkable dancer (or all three), you would not want to develop a coping thought for parties that goes, "All the (wo)men in the room are dying to take me home." Similarly, you do not want to say to yourself, "I will not be anxious when I argue the case before the Supreme Court" when the reality is that you probably will be nervous. A more realistic thought for that situation might be, "I know my stuff, and I'm excited about this opportunity to show it."

People describe this approach as talking themselves through an anxiety-arousing situation. The best way to explain this process is with some examples of how people *identify* anxious thoughts and related beliefs, *question* and *discuss* how realistic the thoughts are, and *develop coping thoughts*.

Using our example from above:

***Anxious thought:*** "Everyone will look at me when I enter the room."

***Related belief or assumption****:* People watch me to see if I do something they can criticize or laugh at.

***Questions:*** *Are* people really watching me for something to criticize?
Is everybody watching me or are just some people looking at me?

How much of the time are they watching me?

***Discussion:*** An alternative explanation is that most people watch others just to pass the time. Most reasonable people are not terribly critical. At any time, maybe a couple of people are looking at me; the rest are paying attention to other things.

***Coping thoughts****:* "It's normal for people to watch other people. They usually get interested in something else after a few minutes."
"Most people are busy thinking about their own concerns. My situation will interest them for only a short time. I can handle it."

In reading this unit you have identified patterns of anxious thinking. Now, use the worksheet below to list social situations that are difficult for you and your anxious thoughts in those situations. Then work through the process of identifying related beliefs and assumptions, questioning them, and developing coping thoughts. As you continue to work on overcoming social anxiety, it will be helpful to return to these questions.

Difficult situation:
_____

Anxious thoughts:
_____

_____
_____
Related beliefs or assumptions:
_____

Question: How realistic are these thoughts?
_____

_____
_____
Coping thoughts:
_____

_____
_____

**Tip: Practice using coping thoughts.**
When some people consider coping thoughts they say, "I already know that. How is that going to help me?" Much of the information in coping thoughts may be knowledge you already have. The key to using coping thoughts effectively is to get in the habit of using them whenever you are anxious. The more you use them, the more readily you will be able to call them to mind when you need them.

## Your thought diary

Now that you are aware of the role anxious thinking plays in social anxiety, you must use this knowledge in everyday life. A way to do this is to use a diary to keep track of both your anxious thoughts and your new coping thoughts. Watch for times when you are feeling anxious before, during, or after a challenging situation. Make note of the date,

the situation, the anxious thoughts that arose, and the coping thoughts you employed, and rate your anxiety on a 10-point scale from 0 (no anxiety noticeable) to 10 (as anxious as you ever get). This diary will help you identify anxious thoughts and see how consistently you are using coping thoughts.

| Date | Situation | Anxious thoughts, coping thoughts | Anxiety rating 0 - 10 |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

Unit 2b questions

1. How does focusing on the present activity help with social anxiety?
2. Give an example of a situation where you focused on what other people were thinking and how you could switch your thoughts to focus on the present?
3. What is anticipatory anxiety?
4. How is distraction useful? How can it be problematic?
5. Say you are worried about an upcoming presentation you have to give in class. Give two examples of *healthy* distractions.
6. What are the three steps for changing negative thinking?
7. Name and describe two different kinds of anxious assumptions
8. Give an example that illustrates anxious assumptions.
9. Using an example, illustrate a how someone could use the skills presented in this unit to work through a difficult social situation. Label the anxious thoughts, related beliefs or assumptions, how realistic are the thoughts, and some coping thoughts.
10. How could this unit be improved (e.g., what was unclear, additional information that would be helpful, other suggestions)?

Unit 3a- Physical Symptoms and Learning to Relax

Physical symptoms are a normal part of the anxiety response, but they can be frightening. You may worry that others will notice your blushing, excessive perspiration, shaky hands, trembling voice, or noisy stomach. While these physical symptoms involve part of the nervous system that is not under direct voluntary control, there are a number of strategies you can use to indirectly influence them:

- *Acceptance:* By resisting physical symptoms of anxiety, you may increase them, whereas if you accept the symptoms, you may actually reduce them. Acceptance is one of the most effective and powerful ways of dealing with unpleasant sensations and thoughts. Your body's natural tendency is to return from an

aroused state to a calmer state; it will get there sooner if you do not struggle against symptoms.

- *Refocusing:* Focusing your attention away from your symptoms and toward the external environment can help. For example, concentrate on the conversation you're involved in, rather than on your racing heart.
- *Coping thoughts:* These can help you both accept your symptoms and refocus your attention. Here is an example: "I'm really sweating a lot. Don't fight it. Just let it pass. Pay attention to the other person."
- *Plan what to say if someone comments:* You may be worried that someone will comment on a noticeable symptom ("Wow, you're sweating more than a pig at a luau, Hank!"). Most times, no one will say anything. But you'll feel less anxious if you are prepared with a good response. We'll discuss what you can say in these situations shortly.
- *Masking the symptoms:* Many people find they can conceal their anxiety symptoms. This can help you cope in the short term until the symptoms become less of a problem.
- *Relaxation:* Later in this unit we will describe several relaxation strategies that can help reduce physical symptoms.

**What if someone notices the symptoms?**

You may spend a lot of time worrying that someone will comment on your sweating, blushing, shaky voice, or noisy stomach. Ask yourself: "How often has someone commented on my anxiety symptom(s)?" This usually has never or only rarely happened. This is because the symptom may be obvious and important to you, but not to others. If you worry that others might comment on your symptoms, take a few minutes now to note each symptom and some responses. Practice saying the responses until you remember them easily.

**Tip: How much do you say? It's up to you.**
A rule in most social situations is you decide how much or how little information to disclose about yourself. When I arrive at work and someone asks "How are you today?" I am free to answer "Not bad," even if I feel upset about an argument at home that morning. On the other hand, I could answer "Really stressed from an argument with one of the kids." It's totally up to me. This is not an issue of being honest or dishonest. Rather it is an issue of how much you want to talk about your experiences at that time.

**Masking symptoms**

Many people have discovered methods to mask uncomfortable and embarrassing symptoms. Those with excessive perspiration in the hands have applied antiperspirant at night to reduce perspiration when shaking hands the next day. Others with excessive blushing may wear darker clothing that provides less contrast when the skin is flushed. People with excessive stomach activity sometimes obtain recommendations from doctors or pharmacists about medicines to reduce it. Each of these approaches can be useful, provided you do not use them as your only way of coping with anxiety. Once you broaden your range of coping skills, many of these masking approaches will no longer be necessary and it is helpful to let go of masking strategies.

## Relaxation strategies

Many of us experience a high level of muscle tension in everyday life. For some people, it is if they are working in a nitroglycerine factory. They are constantly looking

for signs of an impending explosion and are ready to run for their lives at any moment. High levels of tension can also be related to a variety of health problems, including headaches and backaches.

Learning to relax when you are under pressure can help you perform more skilfully and quickly. Athletes learn that their performance is much smoother if they are able to relax their bodies and use just the muscles they need. Excessive tension leads to awkwardness and using more energy than you need to accomplish the task.

We will briefly review three relaxation approaches: relaxed breathing, deep muscle relaxation, and imagery relaxation. If you have already learned a relaxation procedure you find helpful, you may wish to continue using that one. But it can be useful to have a repertoire of relaxation strategies to use at different times and in different situations, so read on.

**Relaxed breathing**

This is a simple technique that you can learn quickly. There is a tendency to breathe faster when you are anxious; this can lead to symptoms like dizziness or tingling in the hands, feet, or face. Relaxed breathing helps to bring these under control. One of the beauties of relaxed breathing is that you can use it anywhere without anyone noticing – in a parent-teacher meeting, standing in line at the grocery store, riding a bus, or at a bar mitzvah reception.

Start by observing your typical breathing pattern:

- Sit in a comfortable chair with armrests.
- Place your feet on the floor in front of you.
- Rest your elbows on the arms of the chair.
- Put one hand on your chest and the other on your stomach.
- Now close your eyes and breathe in a way that feels natural to you. Let yourself be as relaxed and loose as possible.
- As your breathing settles down and you get into a comfortable rhythm, notice how much the hand on your chest moves, and how much the hand on your stomach moves. Continue for a minute or two.

People often think that the chest muscles do most of the work of breathing. In fact, when you are relaxed the muscles of your diaphragm do most of the work. The diaphragm separates the chest cavity from the abdomen. It contracts (pulls down and shortens) to bring air into your lungs and relaxes and moves back up to let the air flow out of your lungs. During relaxed breathing, your stomach moves out when you inhale and settles back when you exhale. There may be some movement in your chest muscles, but your stomach moves more. To confirm this, you may want to watch a sleeping child or pet (a cat or dog); when you do, notice how little the chest moves compared to the abdomen.

Now it's time to practice relaxed breathing. When you practice, make sure you are breathing at a relaxed pace (not too quickly), and allowing your diaphragm to do the work. Here's how to do it:

8. *Begin practicing in a quiet spot.* Sit or lie in a place with good support for your back, neck, and arms.
9. *Breathe through your nose.* Close your eyes and focus on your breathing. Breathe through your nose (if it's not blocked) at your usual rate.
10. *Breathe from your diaphragm.* Let your stomach move out about an inch each time you inhale. When you exhale your stomach will return to its resting position.

11. *Take long slow breaths, pausing for one second after you inhale and one second after you exhale.* Remember this is slow, relaxed breathing, not *deep* breathing, so take a natural amount of air, not a deep breath.
12. *Once you are in a comfortable rhythm, slow down the pace of your breathing.* Find a natural and relaxed pace that feels comfortable.
13. *Imagine the tension flowing out of your body with each exhalation.* Many people find it helpful to imagine saying a word such as "relax" or "calm" each time they exhale.
14. *Keep up the practice for 5 or 10 minutes so you get used to the rhythm.*

Many people find they can learn the technique in a few sessions because it is simply breathing in a normal relaxed way. Other people find it more difficult to settle into a relaxed rhythm. They find that they become uncomfortable when they focus on breathing. These people often have the most irregular breathing in anxiety provoking situations. If relaxed breathing is difficult for you, try to continue practicing until it becomes more comfortable. About one in ten people never become comfortable with the relaxed breathing technique. If you're one of them, don't fret. Move on to one of the other techniques.

*Breathing meditation.* A very convenient form of mindfulness mediation that follows very easily from relaxed breathing practice, involves a quiet period of focusing on your breathing. As with the instructions above, get as comfortable as you can in your current environment. Close your eyes if possible (although it can also be done with eyes open). Focus your attention on your breathing and notice how your body feels as you breathe. Feel the sensation of the air moving through your nose or mouth. Notice your abdomen moving as you breathe in and out. If there is any discomfort in your body let yourself notice that also. As you continue the focus on your breathing, you will notice that your attention wonders to thoughts about all kinds of memories and experiences. Accept these thoughts without judging them (as good thoughts or bad thoughts), notice what you are thinking about, and then direct your attention back to your breathing. Continue this focus on your breathing as long as you would like to continue. When you decide you have finished your meditation, open your eyes and focus your attention on the outside world. What do you see, hear, feel, and smell? Then move on to your next activity.

**Deep muscle relaxation**

This technique involves moving systematically through the muscles of your body, first tensing and then relaxing them, to release unnecessary tension. Start using the program outlined here:

5. *Begin practicing in a quiet spot:* Sit or lie in a place with good support for your back, neck, and arms. An easy chair or recliner is especially good. Do not lie down if there is a risk you will fall asleep before you have completed your practice.
6. *Tense each muscle group as described below for about five seconds:* Focus on the feeling when the muscles are tense. Then slowly release the tension. Feel the tension flowing out of the muscles as they become looser, heavier, and more relaxed. Let the muscle group stay relaxed for 10 to 20 seconds. Tense and relax each muscle group twice before moving on to the next group.
7. *As you release the tension in each muscle group, say the word "RELAX" slowly to yourself.*
8. *Notice how your muscles feel when they are tense and when they are relaxed.*

Now tense and relax each muscle group **twice**:

17. Clench your left fist; then relax.
18. Clench your right fist; then relax.
19. Bend both hands back at the wrists to tense the muscles in the backs of your hands and forearms; relax.
20. Clench both fists, bend your elbows, and bring your fists toward your shoulders to tighten the muscles in your upper arms; relax.
21. Pull your shoulders up toward your ears; relax.
22. Wrinkle your forehead and brow; relax.
23. Close your eyes tightly; relax. (Be sure to remove contact lenses first.)
24. Clench your jaw and teeth; relax.
25. Press your lips together tightly; relax.
26. Bring your head forward and pull your chin in toward your chest; relax.
27. Arch your back and stick out your chest and abdomen; relax.
28. Take a deep breath, filling your lungs completely, and hold it for five seconds; exhale and relax.
29. Tighten the muscles in your abdomen; relax.
30. Tighten the muscles in your lower back and buttocks; relax.
31. Stretch out both legs in front of you, pointing your toes; relax.
32. Tighten your calf muscles by flexing your feet and pointing your toes up toward the ceiling; relax.

After you have moved through all of the muscle groups, remain relaxed for two or three minutes with your eyes closed. Allow your body and your breathing to relax and focus on that feeling. Tense the muscles firmly, but don't overdo it. If you feel pain, cramping, or trembling, you are tensing too hard or too long (or both). If you have muscle or joint problems, you may wish to gently move or stretch that area rather than tense it, then relax it.

Most people find if they practice this exercise daily for a week or two they are able to relax their muscles effectively. Once it is going smoothly, move through the tense-and-relax cycle more efficiently by using larger groups of muscles:

7. Hands and arms;
8. Head, neck, and shoulders;
9. Chest and upper back;
10. Abdomen;
11. Lower back and buttocks;
12. Legs and feet.

Once you have completed the tense-and-relax cycle, remain in place and allow yourself to stay fully relaxed for about 15 minutes. If, like most of us, you don't have 15 minutes to relax, then 10 will do. The important thing is to carve out *some* quiet time to practice relaxation. You won't be able to do this if the TV is blaring, the phone is ringing, or your kids are yelling. Tell those around you, "I need 15 minutes alone in my room. Please don't bother me unless it's an emergency." Then go to your room, close the door, and don't emerge unless it's really an emergency.

After you have practiced the shorter list of muscle groups for a week or two and it is going well, move on to the simplest procedure of all: Tense your whole body for a few seconds and then relax or take a long, slow breath and then relax your whole body as you exhale. Once you reach this level, you will be able to use the muscle relaxation strategy at any time – at a social gathering, in line at the checkout counter, or even when you are riding a bike.

Check your muscle tension level several times during the day. If it's high, take a minute or two to relax.

**Imagery relaxation**

Imagery relaxation – using your imagination to create a relaxing series of images – is a powerful method to focus your attention. People who have difficulty with anxiety often form images of the many catastrophes that can happen. With imagery relaxation, you develop a detailed mental picture of a relaxing situation (or one you imagine would be relaxing). Think of vivid details and include as many of your senses as possible. What would you see, hear, smell, taste, and feel? Here is an example:

*I'm sitting on a soft patch of grass at the side of a lake. It is evening and the air is pleasantly warm against my skin. The sun is getting lower on the horizon and the sky is starting to turn orange and pink. I can hear a motorboat in the distance. I can feel the moist air and smell the flowers. Birds are calling from the woods nearby. I am at peace.*

Now get a piece of paper and write a vivid description of a relaxing scene you would like to use.

Imagine this scene during your imagery relaxation sessions. Allow yourself to think of other aspects of the scene and change it, as long as it remains relaxing. This technique can be especially helpful when you return home after a busy day or before you go to sleep.

**Relaxation Practice**

It is useful to familiarize yourself with more than one relaxation technique. Imagery relaxation works best during quiet periods or before you enter a challenging situation, while breathing and muscle relaxation are easier to use while the situation is happening.

Master one relaxation technique at a time. Practice every day until it becomes familiar. If possible, practice at first when you are not feeling tense. Then start using the technique when you are anxious. Once you have learned a technique, it will stay with you indefinitely provided that you use it from time to time in your everyday life.

**Trap: Don't focus on relaxation alone.**
Some people put too much emphasis on using relaxation techniques alone in an attempt to reduce anxiety feelings, without working on the other parts of the program. Relaxation works best when you use it consistently over time with other coping techniques. It is best not to use relaxation approaches to struggle with feelings of anxiety. Take a little time to let go of your tension if you can, then accept anxious thoughts and feelings and move on to a focus on your current activities and goals.

## Relaxation Practice Diary

Use the relaxation practice diary to keep track of your practice. After each practice session, record the date and time it occurred, where you practiced, how many

minutes you practiced, and your tension level (on the one to ten scale) at the start and end of the session. Finally, comment on how the session went.

| Date/ Time | Where I practiced | Minutes spent practicing | Tension level-start | Tension level-End | Comments |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |

**Tension/Anxiety Rating Scale**

| NONE | | MILD | | | MODERATE | | | SEVERE | VERY SEVERE |
|---|---|---|---|---|---|---|---|---|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

**Trap: Don't skip regular practice**
Many people have difficulty making time for relaxation practice. Remember that a small time commitment to regularly practice these skills can save you time later. The benefits of relaxation may last for years after you master the techniques.

Unit 3a questions:

1. Name 3-4 physical symptoms that are associated with anxiety.
2. Describe 3 strategies you can use to influence your physical symptoms of anxiety.
3. You have a big presentation and are sweating like a horse. What are some things you can do?
4. Briefly describe three different relaxation skills presented in this unit.
5. Your friend is really worried about an exam. What kind of relaxation would be helpful for her to practice? Why?
6. Provide an example of a script for imagery relaxation.
7. A peer likes the idea of using relaxation skills to help with the physical symptoms but complains about having to practice every day. What would you say? (Hint: what are some benefits of frequent practice, suggestions for shorter durations?)
8. Practice one or two muscle groups of progressive muscle relaxation. Describe your sensations, thoughts, and any difficulties you experience.
9. Do you think you can use relaxation skills alone to conquer anxiety? Why or why not?
10. How could this unit be improved (e.g., what was unclear, additional information that would be helpful, other suggestions)?

## Thursday reading

Unit 3b- Practicing what you've learnt

The key to conquering anxiety

*Facing your fear* is the best way to overcome anxiety. The idea is not new. Most of us know the answer to the old question, *what should you do if you fall off a horse?* The correct answer is:

a. Shoot the horse
b. Eat the horse
c. Shoot the horse, then eat it
d. Get back on the horse and ride again as soon as possible
e. Sue the horse

The correct answer is, of course, "d". (Unless you live in France, in which case "b" is also acceptable, provided you've got the right wine.) Therapists routinely advise people to "get back on the horse" when they have experienced traumas such as motor vehicle accidents. The sooner you drive again, the sooner you will become comfortable with driving. The longer you avoid driving, the more your fear about driving will grow.

Using coping thoughts and managing physical symptoms won't be effective in the long run unless you also face your fears. Exposing yourself to your fear--or *exposure therapy*, as it is also known--is best accomplished step by step. This allows you to move ahead without having to endure situations where the anxiety is unusually high.

**Avoidance behavior maintains anxiety**

We've talked about avoidance behavior, a strategy we learn early in life to keep ourselves out of uncomfortable or painful situations. We can hear you saying, "But I don't avoid many of the situations that make me anxious!"

Some people don't avoid anxiety-provoking situations, yet find their anxiety persists. Why does their anxiety continue even though they are facing their fears? The answer here often lies with more subtle types of avoidance. You may be physically present but still avoiding some important aspects of the situation. For instance:

- You go to school or work every day but avoid talking to certain people, such as fellow students you don't know well, or the head of your department.
- In a meeting or class you avoid eye contact with the person in charge so she or he won't ask you a question.
- You avoid opportunities to go to coffee or lunch with your co-workers, or you go only with one or two you feel safe with.
- You listen to people discussing a topic you're interested in, but avoid giving your opinion because you are afraid of saying something foolish or stumbling on your words.
- You go to a social gathering only if someone you know well and trust is there with you. You rely on that person to do most of the talking.
- You meet one or two people at a gathering and spend the whole time with them. You do not make an effort to speak to other people.
- You spend a great deal of time preparing for all possible questions that could come up at a meeting or presentation.

- You go out to eat, but you avoid foods that are messy or easy to spill (soup, spaghetti with sauce).
- You worry about your hand shaking and spilling your beverage, so you order only those beverages with lids and straws.

In each of these cases, *subtle avoidance* prevents you from being fully involved in the situation. You are present, but you engineer ways of avoiding aspects of the situation you fear. Avoidance of anxious feelings, thoughts, and memories also feeds anxiety. Some people go to great lengths in their attempts to avoid these experiences also and usually the result is more anxiety. This kind of avoidance limits the range of options and choices for your actions. You then continue to fear the situation because you worry, "What if my way of coping (avoiding) doesn't work?" You never develop confidence that you can handle the situation.

Some people do have anxiety problems but no avoidance behaviors. For these people, it is usually anxious thinking that maintains their anxiety. If this is your situation, it is still important for you to face your fears. As you read this chapter, identify social situations that are difficult for you *even if you do not avoid them,* and practice going into those situations and using the coping techniques described in units 3 and 4.

Another way to avoid being in an anxiety-provoking situation is to mentally avoid it. It is possible, for example, to be physically present at your office's holiday party, but wishing so hard that you weren't that you're really not there in spirit or in mind. Some people describe being in a fog throughout the event, focusing on only one thought: "It'll be over soon. It'll be over soon." Others drink enough alcohol that they're out of touch with what's going on around them. These forms of cognitive avoidance–not being there in mind–have the same effect as other kinds of avoidance: they rob you of the opportunity to become comfortable in and confident about your ability to handle a situation. It is therefore important to focus on being in the situation: don't let your mind wander, make a point of consciously taking in your surroundings and other people, and let it sink in that you're actually there! Anxious feelings and thoughts will be part of your experience also—don't fight them, just accept them and focus on your values and goals in the situation.

**Identifying difficult social situations**

Think about the difficult situations you listed in the previous unit. Now that you've reviewed your list, think about the avoidant behaviors you've used to cope with these situations. There may be some situations that make you anxious which you don't avoid. You may be using some *subtle avoidance behaviors* in these situations. Review the examples of *subtle avoidance* and list the ones you typically use on the worksheet.

**Developing assignments to face your fears**

So far, you have identified situations that make you anxious, along with avoidance behaviors you use to cope with them. Now you're ready for the next step: planning assignments to face your fears. To develop any new skill, you progress step-by-step, from where you are to where you would like to go. Your list of difficult situations will tell you where you are. The short-, medium-, and long-term goals you identified at the end of Chap, 6 will tell you where you would like to go. The best way to achieve these goals is to practice *facing your fears*. The more time you spend facing a fear, the more you will reduce it.

In the following section you will come up with ideas for *practice assignments*, social activities you would like to practice based on your goals. You should choose assignments that *are important to you, increase in difficulty*, and *are repeatable*.

**2. Make the assignments important to you**

Start with assignments that matter to you (that fit with your values and goals) and have some natural rewards built in.

*Strong Assignment:* If you are working toward being able to go to a fancy restaurant for your wife's birthday, "Eating in a restaurant with friends" would be a good assignment. The assignment would feel important and there would be lots of natural rewards (enjoyable food and company) to keep you working at it.

*Weak Assignment:* If you are working toward being able to speak before a large audience but have no current need to do so, it would not make sense to choose "speaking to a large group" right away. The assignment wouldn't feel important and there wouldn't be any natural rewards to keep you going. You would probably feel that you were working hard to learn a skill you were unlikely to use in the foreseeable future.

**2. Make the practice assignments increase in difficulty**

Don't start with assignments that make you extremely anxious. Instead, start with assignments that make you somewhat anxious and over time move toward working on more difficult assignments. Remember, you've got to walk before you run. Start small and build on success.

*Strong Assignment:* If you ranked "Talking to a co-worker at coffee break" as one of your easier short-term goals that would be a good assignment to start with. You could test your coping strategies without feeling overwhelmed.

*Weak Assignment*: If you ranked "Giving a formal talk to a group at work" as the most difficult of your short-term goals, it would not be a good assignment to start with. You would probably feel overwhelmed by starting such a difficult assignment before you had successfully completed easier ones.

**3. Make the practice assignments repeatable**

Pick assignments you can work on over and over again. Situations that you can control are best. Facing tasks that come up unexpectedly can help you overcome anxiety, but you cannot control when they will occur. They are difficult to practice frequently or regularly. Similarly, assignments that rely on unusual circumstances or other people are also hard to practice regularly. Assignments you can arrange every day or every week are especially effective.

*Strong Assignment:* "Making eye contact with people at work and around the neighborhood" is a good assignment because you can practice every day.

*Weak Assignment:* "Going to concerts" might be a difficult assignment to repeat if there aren't frequent concerts in your area (and if you aren't independently wealthy). This doesn't mean you shouldn't go to concerts, but you should also pick other repeatable assignments involving sitting in crowded places so you can practice frequently.

**Tip: Build endurance**
Practice each assignment long enough so that it has a chance to sink in. You may have attended a crowded meeting every Tuesday for the past two years and wonder why you're still anxious. The answer may lie in how long you spend in the situation. If you enter an anxiety-provoking situation and stay only a few minutes, it isn't long enough for your body and mind to adjust so you feel more comfortable next time. How long is long enough? A minimum of 20 minutes – and preferably longer – each time you are in the situation should be long enough. For example, if you are practicing having lunch with colleagues, be sure you sit at the table with them for at least 20 or 30 minutes before you head off.

## Breaking down goals into gradual steps

Some of your short-, medium-, and long-term goals are activities you can start working on right away. Others may seem too complicated or difficult to launch into

immediately. You can start working on these challenging goals sooner if you break them down into smaller steps.

- *Break down a complicated task into smaller steps*. Having a group of family members, friends, or neighbors over for dinner may seem difficult. Start out by having one person over for coffee several times. Once you are more comfortable with this, have a few people over for coffee and a snack. Then start having one person for lunch or dinner, then a few people, and so on. (We were only kidding about serving horse and wine. Avoid horse altogether. For a list of mammals not to serve at social occasions, check out www.donteatme.com.)

- *Start practicing with just one or two people; then work toward larger groups*, If you have difficulty speaking at a large meeting, start by speaking informally at small meetings, perhaps by asking a question. If you have trouble with conversations at large events such as wedding receptions, practice speaking to unfamiliar people at smaller events. For instance, have coffee with someone you don't know well at work or in the neighborhood.

- *Start by talking to people who are less intimidating and work your way up.* Your goal may be to talk comfortably with your manager at work. If this is too difficult for a first step, you could start by talking with co-workers more often, then a supervisor, and then the manager. Talk about casual topics at first ("How was your weekend?") and move toward more substantive topics ("There's a problem I'd like to discuss with you").

- *Start out with casual situations and work toward more formal ones.* You may find it difficult to dine at fancy restaurants or business banquets. Facing less formal situations can help prepare you face the more formal ones later on. One woman we know developed a strategy to overcome her restaurant anxiety. When she knew she had a meal coming up, she would find out where the event would be held, and go alone or with a close friend to the restaurant for lunch or dessert well in advance of the event. This allowed her to become familiar with the layout of the restaurant, and scope out the location of coat racks and restrooms. She was then better prepared when she went with a group. As she became more comfortable with eating in public, she no longer needed to visit the restaurant in advance.

**You're allowed to make mistakes -- try it, you'll like it!**

A major factor that may influence your willingness to practice challenging situations is the fear of making mistakes. As we mentioned earlier, the most reliable way to never make a mistake is to avoid doing anything new. As people participate in social situations it is normal to make mistakes. We can speak with some authority because we are the world's champions at spilling coffee (usually all over papers at a meeting), tripping over words, mixing up names, and slamming into people in the hall. If you develop a willingness to make mistakes, you will be able to be comfortable in a wide range of social situations. Here are some ways of handling mistakes:

- Burst into tears and run screaming from the room. (We don't recommend this.)
- You can handle most slips of the tongue by either ignoring them or simply repeating the sentence and forging ahead. Do not spend a lot of time explaining or clarifying.
- Bumping into people can be handled with a simple "Sorry," or "Excuse me," and then getting on with things. If you bump into someone with a great deal of force, a simple "I'll be happy to pay for the surgery" should suffice. Again, keep it short and sweet.

- You can handle obvious mishaps such as spilling a cup of coffee by cleaning up and making a humorous comment such as, "It's going to be one of those days," or "I guess this will ensure that I clean up my desk." It is best not to engage in excessive apologies or self-criticism. People appreciate someone who does not take herself or himself too seriously.

As you become more comfortable in social situations, focus on handling mistakes in a relaxed way with a good sense of humor. Some people who rarely make mistakes may benefit from making some and handling the situations effectively. Wouldn't it be an interesting experiment to intentionally spill a glass of water at a meeting just to practice handling it with humor!

**Tip: Repeat practice assignments over and over again**.
Think of a skill you have learned over the years (for example, keyboarding, driving, or swimming). How many mistakes did you make as you learned? How many hours did you practice before you became good at it? Most of us have to practice the same activity over and over until it becomes an automatic part of our routine. In order to become comfortable and skilled in social situations, you must practice a great deal – the more frequently, the better. Focus on learning the new skill – not on avoiding mistakes.

**Planning practice for each week**

As you face your fears, you should plan one week of practice at a time. A sample of a completed sheet is included at the end of this unit. Sometimes you'll decide to add a practice assignment after you've planned your assignments for the week. Adding an assignment if an opportunity comes up or if you spontaneously decide to do something more is great. Using the steps and assignments you just outlined, now turn to the blank weekly practice sheet and plan several assignments for the coming week (make as many copies as you want). Writing out your assignments makes it more likely that you will follow through.

As with your goals, your practice assignments should be specific and concrete so you can tell when you have completed them. There is space on the weekly practice sheet to keep track of the time you spend practicing each assignment over the week. We encourage you to spend several hours a week practicing. A few minutes a day just isn't going to do it.

## Weekly Practice Sheet

Date: _____to _____

Describe the assignments as specifically as possible in the spaces below. Try to say exactly what you plan to do. Circle the boxes that correspond to the days on which you plan to do each assignment. Check off the boxes as you complete each assignment and write how much time you spent doing it.

| Practice Assignments | Sun. | Mon. | Tues. | Wed. | Thurs | Fri. | Sat. |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| | | | | | | | |

Total time invested in practice this week:_____

## EXAMPLE:

## Weekly Practice Sheet

Date: *June 10* to *June 16*

Describe the assignments as specifically as possible in the spaces below. Try to say exactly what you plan to do. Circle the boxes for the day or days on which you plan to do each one. Check off the box under the day when you do the assignment and note how much time you spent.

| Practice Assignments | Sun. | Mon. | Tues. | Wed. | Thurs | Fri. | Sat. |
|---|---|---|---|---|---|---|---|
| *Go for morning and afternoon coffee breaks with Fred. Ask a couple of questions.* | | ✓20min<br>✓10min | ✓20min<br>✓20min | *No* | ✓10min | ✓20min<br>✓20min | |
| *Talk for a few minutes to co-workers outside of coffee breaks.* | | ✓2 min | ✓10min | ✓7 min | *No* | ✓10min | |
| *Invite neighbor for coffee on Saturday.* | | | | | | | ✓45min |
| *Ask sister over for dinner on Friday night.* | | | | | | ✓90min | |
| *Make eye contact and say hi to three people on the street Monday through Friday.* | | ✓2 min<br>✓3 min | ✓1 min | ✓2 min<br>✓1 min<br>✓5 min | ✓1 min<br>✓3min<br>✓2 min | ✓2 min<br>✓3 min | |
| Phoned Diane in Nashville on Thursday | | | | | 45 min | | |
| | | | | | | | |

Total time invested in practice this week: *6 hours, 24 minutes*

**Putting it all together**

As you work on your practice assignments, it is important that you use other coping skills as well. Accept your anxious thoughts and feelings and stay focused on your values and your goals (such as showing kindness and interest to others) in that situation. In challenging situations, remember to focus on other people and not yourself. Be aware of your anxious thoughts before, during, and after the situation. As you practice in more situations, you may discover new anxious thoughts and want to develop new coping thoughts to deal with them. Work toward beliefs about people and social interactions that are realistic and helpful.

Remember that, while it is helpful to recognize anxious thoughts and to consider more realistic coping thoughts, it is not necessary to struggle with your thoughts. Accept the anxious thoughts and feelings and then focus on your goals and the world around you.

**Trap: Don't be a hypercritical coach.**
You may have a tendency to negatively evaluate your performance during and after challenging situations. This excessive self-criticism can discourage you from practicing. Cheer yourself on as you evaluate your efforts. Pat yourself on the back when you've taken a risk and done something difficult. And give yourself a break – don't expect perfection!

Unit 3b questions

1. What is subtle avoidance? Give an example.
2. What three things should you keep in mind when planning assignments for yourself?
3. Give an example that illustrates breaking down a goal into smaller steps.
4. Say you have trouble asking questions in class. Design an assignment to help with this goal. (Hint: You may need to break the larger goal down into steps).
5. How does fear of making a mistake hinder your progress towards your goals?
6. Give an example of 2-3 days of planned assignments.
7. What should you do if you forget to complete an assignment?
8. Why is practice important?
9. How can you use all of the materials you've learned to help someone with fear of public speaking?
10. How could this unit be improved (e.g., what was unclear, additional information that would be helpful, other suggestions)?

Appendix J:
Debriefing form

Study Feedback

Thank you for participating in this study. Over the course of the week, you have read five different units pertaining to ways to cope with anxiety and then answered questions on the material. This study is the first phase in the development of a new treatment protocol to treat Social anxiety. It is unique in that not only is it possible to complete the entire treatment online, but unlike other online treatment programs, this one incorporates an interactive component: peer-review. The purpose of the study you have just completed is to answer the following key questions: (a) Does the treatment itself help reduce anxiety? (b) Does peer-review have a therapeutic effect by itself in addition to the treatment? (c) Is the program easy enough to use for people to benefit from it? (d) What can be done to improve the program? Based on the statistical analyses, modifications to the program may be included in the next round of testing.

While the materials you've received over the course of the experiment are similar to those you would receive if you were treatment with a therapist, it is not yet a proven treatment protocol and should not be used as a substitution for treatment if you, or someone you know, has a significant problem with anxiety. While everyone experiences anxiety from time to time, indicators of a serious problem include: avoiding social situations, panic attacks, insomnia, changes in appetite, and changes in ability to complete work or school. If you or someone you know has a problem with anxiety, please contact one of the resources below, or speak to the experimenter. Messages for the experimenter can be reached at the Psychological Service Centre (474-XXXX) or via e-mail at XXXX@cc.umanitoba.ca.

*In a crisis, call Klinic Crisis line at 786-XXXX*

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|---|---|---|---|
| Psychological Service Centre | 166 Dafoe Bldg. | 474-XXXX | (near Greenhouse Cafe) |
| Student Counselling & Career Centre (www.umanitoba.ca/student/counselling/) | 474 University Centre | 474-XXXX | |
| Klinic Community Health Centre | 870 Portage Ave | 784-XXXX | www.klinic.mb.ca |
| Anxiety Disorder Association of Manitoba | 100-4 Fort St. | 925-XXXX | www.adam.mb.ca |
| Mood Disorders Association of Manitoba | 100-4 Fort St. | 786-XXXX | www.depression.mb.ca |