Shyness: Causes and Impact

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Faculty Disclosure
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The division planners and director have disclosed no relevant financial relationship with any product manufacturer or service provider mentioned.

Audience
This course is designed for licensed mental health professionals, including social workers, counselors, and therapists, who may assist persons with their shyness.

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Course Objective

To understand shyness from a biologic, psychologic, social, and attributional perspective can help expand treatment options. The purpose of this course is to bring about awareness of the intricacy of shyness, which can assist clinicians in providing thorough treatment.

Learning Objectives

Upon completion of this course, you should be able to:

1. Compare and contrast the working definitions of shyness and how it may affect treatment.
2. Discuss the application of attachment theories to shyness, including the role of the parent-child relationship.
3. Outline how attributional theories are used to better understand the causes of shyness.
4. Analyze the role of genetics and physiologic response in the development of shyness.
5. Identify differences in shyness according to gender and age.
6. Describe various treatment approaches used in the care of shy clients.

EVIDENCE-BASED PRACTICE RECOMMENDATION

Sections marked with this symbol include evidence-based practice recommendations. The level of evidence and/or strength of recommendation, as provided by the evidence-based source, are also included so you may determine the validity or relevance of the information. These sections may be used in conjunction with the course material for better application to your daily practice.

INTRODUCTION

An understanding of shyness and its social and psychologic impact is necessary in order to assist clinicians in providing better treatment. Knowledge of the biologic, psychologic, and social aspects of shyness can help expand treatment intentions for clinicians. Because shyness can negatively impact the quality of one's life, it should be addressed appropriately and fully.

SHYNESS DEFINED

Past research has acknowledged the complexity of thoroughly investigating shyness due to different operational definitions [1; 2; 3]. While research has focused on aspects of shyness (considered working definitions), the literature appeared to lack a general consensus. For instance, Rickman and Davidson defined shyness as a combination of genetics, socialization, and modeling by an adult caregiver [4]. Bruch and Pearl, on the other hand, emphasized a particular attributional style that encompassed locus of control, stability, and controllability [5]. Since then, definitions have primarily focused on baseline physiologic differences between shy and non-shy individuals [2; 3; 4].

Shyness is a behavior that is easily observable while being difficult to define. For instance, shyness may be viewed as a tendency to be self-conscious, uncomfortable, and anxious while socially engaged, especially upon an initial interaction [3; 6]. Shyness has also been viewed as a cognitive dysfunction, in that a person feels responsible for social failures [5; 7]. Because past research had difficulty operationally defining shyness, other terms were used, including "temperamentally or behaviorally inhibited" and "communication apprehension" [4; 6].

Shyness is subjected to different theoretical orientations as well, and this has further complicated its definition. For example, Srivastava, John, Gosling, and Potter compared the Big Five factors (openness, conscientiousness, extraversion, agreeableness, and neuroticism) and the contextual theory of personality [8]. The former, also known as the plaster hypothesis, stated that personality was based upon biology and remained relatively stable throughout life [8]. The latter, by contrast, viewed personality as evolving through circumstance and subject to change based upon both critical life periods and the gender of the individual. Additional theoretical orientations included early attachment between child and caregiver and genetic and neurologic factors [2; 3; 7; 9]. For the purposes of this course, the term shyness is generally defined as a continuum of excessive self-focus causing anxiety or discomfort in social situations and possibly interfering with pursuing interests or participating in activities [10].

Manning and Ray studied communication styles in shy and self-confident adults [6]. In the investigation, the researchers created 15 female and 5 male dyads, some shy and some non-shy, that engaged in brief conversations that were video-and audiotaped. The authors concluded that all but one of the shy dyads failed to introduce themselves, and all of the shy dyads awkwardly talked about the immediate surroundings. On the other hand, the ten dyads operationally defined as self-confident introduced themselves and the talk of immediate surroundings in these groups was a springboard for other conversation. However, this study is impeded by its small sample size and its failure to analyze the data for gender differences [6].

ATTACHMENT THEORIES AND SHYNESS

The tendency for social avoidance and affective states, such as anxiousness, have been studied in parental attachment theories and shyness, both indicators of early emotional adjustment and later social competency [5; 6; 11; 12; 13; 14]. According to attachment theory, parents have influence over a child's personality development [15]. A secure bond results in a secure child who feels comfortable to explore the environment. The secure bond further allows the child to become accustomed to, and later involved in, interpersonal relationships. Overall, the literature was consistent in the finding that meeting a child's early emotional needs had long-lasting, positive social effects [7; 9; 11]. For instance, women showed both increased psychologic well-being and social competence when securely attached to both figures as they transitioned into college [11].

According to this theory, it is probable that the maternal influence was traditionally stronger in the earlier years of development, as the mother likely spent more time with the child [15; 16]. In a 2018 study, researchers found a link between marital conflict and parental attachment [14]. Specifically, higher marital conflict tended to lead to more negative emotions and fewer positive emotions when parents (particularly fathers) interacted with their children, with resultant impact on parent-child attachment [14]. These findings are consistent with the father-vulnerability hypothesis, which states that fathers' parenting is likely to be adversely affected by marital conflict [14]. Measured parent behaviors included the negotiation of marital problems and the amount of self-reported responsibility one assumed during conflict. Sensitive parental behaviors were defined as promptness and appropriateness of parent responses to the child. Finally, parenting attitude was defined by how much the parent enjoyed playing with the child as observed by positive interactions or the amount of physical and verbal activity with the child.

In this study, the presence or absence of a child's disorganized behaviors was observed in response to the "strange situation." The "strange situation" involved having the parent and child together while the child explored the environment. After some time, an unfamiliar person entered and spoke with the parent, who then left the room. With the parent absent, the unfamiliar person interacted with the child and left the room. The parent later returned, interacted with the child, and again left, leaving the child alone. The unknown person then re-entered, interacted with the child, and the parent re-entered the room. The unknown person then left, and the "strange situation" had ended [17]. Disorganized behaviors were identified as restricted movements of the child in the presence of the parent, rocking on hands and knees following the parent leaving, moving away from the parent when frightened, and screaming upon separation from the parent [14]. Based upon the behavior observed when returned to his or her mother, the child was classified as secure, insecure-resistant, or disorganized-disoriented.

After all data were analyzed, several correlations were noted between attachment behaviors and marital conflict. Specifically, marital conflict was negatively correlated with sensitive interactions and positively correlated with maternal parenting attitude [14]. Also, the degree of attachment between mother and child was correlated with positive interactions. Finally, the overall degree of conflict within the marriage and child disorganized behavior were positively correlated.

The findings of these studies have been replicated in many others, with marital conflict playing a role in attachment, an indicator of later social competency [5; 6; 11; 12; 13; 14]. However, the degree to which a particular parent had a stronger influence was unclear, especially when factors such as genetics and cognitive self-talk were introduced [14; 15; 16]. To further complicate the role of attachment in the later development of shyness, studies also examined the role of race and perceived parental bond. For instance, Rice, Cunningham, Young, and

Mitchell researched parental attachment, gender differences, and the influence of race in a sample of college students [16]. Assessments were utilized to rate the participants' perceived parental bond, social competencies, and overall emotional well-being. With the application of each measure, the authors hoped to expand upon attachment theory literature and measure the social competencies of both African American and white adolescents.

The results of this study showed that the African American and white participants held similar views of parental attachment [16]. Specifically, the authors correlated that if attachment bonds were strong, the social competencies of the participants were strong, regardless of race. In both groups, overall perceived parental relationships were stronger for fathers, although this finding was stronger in the African American sample. This paternal finding contradicted past research that cited a greater maternal influence in attachment [11; 13; 15; 18]. A final finding of the study was that white participants perceived stronger relationships to both parents when compared to the African American sample. However, in another study, researchers found little evidence that race or gender moderated differences in the quality of caregiving or insecure attachments during adolescence [48].

Simpson, Collins, Tran, and Haydon studied a double-mediation developmental model, which was based upon original attachment theories [19]. This model states that the ability to successfully engage in romantic relationships is based upon a foundation of successful infant attachment and peer relationships. In other words, the authors hypothesized a positive correlation between infant attachment and peer relationship satisfaction, followed by satisfactory romantic relationships. To test the hypothesis, they engaged in a longitudinal study beginning at infancy and continuing through 20 to 23 years of age [19]. As infants, the 78 participants were subjected to the strange situation to allow for observation of the child when separated from the mother. Based upon the child's reactions, he or she was assigned a classification of either secure, avoidant, or anxious/resistant. The children were again assessed while in the first, second, or third grade. This time, however, the teacher of the targeted student was given a scenario of an imaginary child. With the teacher unaware of the participating child, the teacher sequentially ranked how closely the scenario resembled each child in the class. As adolescents, the authors interviewed participants about their close friends and comfort level disclosing personal information to them. While in their early 20s, participants completed a detailed questionnaire about experienced emotions if romantically involved. Finally, each romantically involved partner independently completed questionnaires regarding relationship issues (decided the most problematic) and communicated solutions.

The goal of this study was to assess relationships at socially significant periods of life [19]. The study revealed a correlation between attachment at infancy and feeling secure and competent at critical stages of social development. The results of the study indicated a domino effect, whereby less securely attached infants were less socially competent as elementary school children. As a consequence, this negatively impacted how social relationships were viewed during adolescence and how later romantic relationships were handled. The authors claimed that this study was the first to suggest continuity between early attachment relationships in later life [19].

Based on published research, shyness appears to at least partially originate from the quality of the early attachment between child and caregiver. This cross-cultural phenomenon has been noted in both overall theory and empirically based studies [7; 9; 11; 15; 16]. An indirect influence on attachment is marital discord, the degree of which negatively impacts parent and child interactions [14]. The unfortunate outcome of insecurely attached children is lifelong social anxieties [19].

PARENT AND CHILD RELATIONSHIPS

From birth, parents have a tremendous impact upon their children's long-term social well-being and self-confidence. It is the consistency of caregiving, coupled with an appropriate balance of encouragement and boundaries, that aids in satisfactory social interactions, self-confidence, and appropriate emotional reactivity later in life.

ERIKSON'S STAGES OF PSYCHOSOCIAL DEVELOPMENT

Erikson established a theory of the eight stages of psychosocial development that occur throughout life [20]. The importance of the initial four stages in building a foundation for positive social interaction is twofold. Firstly, the parent is primary in guiding the child through these stages, each of which influences how offspring later view social relationships. Secondly, confidence is the direct result of parental support when children begin to explore their environment.

The first stage of psychosocial development, trust vs. mistrust, begins at birth, when infants rely upon their parent or caregiver to provide comfort. If comfort is provided, infants develop a sense of trust, which is both a first social milestone and an emerging confidence. Specifically, children develop confidence when the primary caregiver's routine and schedule is reliable. If trust or confidence does not develop, the psychologic well-being may be negatively impacted. In one study, poor parental attachment was associated with an increase in feelings of defectiveness and risk of suicide in college students [11].

According to Erikson, after children exit the trust vs. mistrust stage, they enter a second stage: autonomy vs. shame and doubt [20]. This stage is characterized by a significant gain in motor skills, which provides the child with an opportunity to physically explore the environment. The resolution of this stage is dependent upon the degree of encouraged self-expression by the parent. The ultimate outcome is the child developing the capacity of either holding on or letting go [20]. To develop the latter, a child must be permitted to explore the environment while the parent helps appropriately ensure safety. An appropriate balance of exploration and caution further solidifies proper attachment as the child understands the supported quest for autonomy [11]. A sense of pride develops if autonomy occurs, while shame and doubt will result in uncertainty and the preference to be unnoticed [20].

The next stage is initiative vs. guilt. Initiative is a natural progression from autonomy, as the child feels a sense of pride and develops confidence to engage in goal-seeking behaviors [20]. At this stage, the child begins to separate from the parent as he or she begins school. If he or she successfully resolves previous conflicts, primarily through parental encouragement and modeling, the ability to cooperate and learn from other adults develops. In addition, the child feels confident in his or her abilities to establish and reach goals.

When initiative vs. guilt is resolved, a child is well prepared to successfully address the next conflict, industry vs. inferiority. At this stage, many children, and emerging adolescents, start to disconnect from parental bonds, and their social life takes top priority. If all conflicts are successfully resolved and the parent provides adequate modeling and encouragement, children should succeed socially. If not, children may lack the confidence to try new things or take social risks.

The earlier psychosocial stages as theorized by Erikson highlight the importance of successful resolution [20]. For instance, if early conflicts are unresolved, shyness could result as a child learns to mistrust others and initial social milestones are missed. If a sense of shame and doubt arises, the child will not develop confidence as a result of being discouraged from utilizing emerging motor skills as a vehicle for social contact. Furthermore, if guilt develops, the child does not develop self-

confidence to separate from parents. However, Erikson's model is based on children being raised in a two-parent household in which the mother is the primary caregiver. Variations in family structure may impact the successful resolution of the various stages.

SHYNESS AND PERCEIVED PARENTING

The impact of an individual's perceived relationship with the parent is crucial in the development of shyness; however, it has been underaddressed in research and clinical practice. It is generally the parent who provides both a social model and a source of social encouragement and discouragement [4]. The results of research on the topic indicate that anxiety-related self-talk positively correlates with having negative perceptions of parenting by an adult child [13; 21; 22].

In shyness, parenting research has primarily centered on parenting styles [13; 18]. As noted, important factors that contribute to shyness include socialization and parental modeling [4]. Examining the role of perceived parenting in shyness is important, as factors such as low familial warmth, utilizing criticism and shame for discipline, feeling a lack of parental support, and overly controlling parents have been noted to intensify shyness [21; 23; 24].

Research regarding perceived parenting and shyness has garnered inconsistent results across age groups and genders [21]. In one study of 260 fifth- and sixth-grade students, teachers completed measures of classroom behavior focused on internalized behavior, such as degree of self-criticism and negative self-talk, while the students completed measures regarding attitudes children had about their parents. The girl students perceived fathers as more accepting than mothers compared to the boys. Among both genders, higher scores on internalized behaviors were correlated with perceptions of mothers as less accepting and more controlling, perhaps because mothers played more of a disciplinarian role than fathers.

Self-criticism is a primary characteristic of shyness, and studies have investigated the relationship between negative self-talk and perceived parenting [22]. In one study, participants with higher levels of self-criticism perceived parents as rejecting and restrictive, especially the same-sex parent [22]. Self-criticism and depressive symptoms during adolescence were related to the perception that parents (particularly mothers) are being psychologically controlling [22].

In another study, female college students were analyzed using the Social Reticence Scale (SRS), which focused on difficulties related to shyness, and the Children's Report of Parent Behavior Inventory, which examined perceived parental behaviors [18; 25]. The results showed that less shy women perceived better relationships with their mothers. Any significant correlation involved the same-sex parent, and findings alluded to a maternal influence on shyness in college-aged women. Women deemed shy tended to perceive mothers as both unaccepting and anxious. The results indicated an insignificant relationship between father/daughter dyads, which was supported by additional research [22].

A final study explored the relationship between social phobic symptoms and perceived parenting [13]. The authors divided a sample population into three subgroups: those defined as generally socially phobic, those defined as situationally socially phobic, and a control sample of adults seen as not socially phobic. Overall, socially phobic participants felt that their parents isolated them from both family and friends. Generalized social phobics tended to report that their mothers were avoidant of social situations. When compared to the nongeneralized social phobics, generalized social phobics felt parents were overly concerned about how they were perceived by others. However, this study found only a maternal influence in social phobias for both men and women and no significance for the fathers of social phobics [13].

IMPACT OF DIVORCE

Aside from Erikson's psychosocial stages, other factors impact parental relationships and can either benefit or hinder psychologic growth of children. The effect of divorce on children may be multifaceted, with emotional, behavioral, educational, and social issues arising in the aftermath. Studies have shown that divorce has been linked to impaired parent-child relationships and depressive symptoms in children [26]. Multifaceted family unions may moderate the negative effects of divorce on children and differences may be noted based on culture, ethnicity, family structure, and special needs [26].

ATTRIBUTIONAL THEORIES AND SHYNESS

Attributional style is the manner by which one explains life experiences and can lean toward optimism or pessimism [5]. Attribution is comprised of three factors, each falling within a continuum: locus of control, stability, and controllability [27]. The first, locus of control, is determined by the extent to which a person assigns cause to an event to internal (positive) or external (negative) factors. In other words, cause is either attributed to the self or something in the environment. Stability is defined by whether the cause of an event is fixed (negative) or variable (positive); a person may believe the causal factor can change over time or that it is unchanging (e.g., luck or chance). The final factor is controllability, or the extent to which a person believes that capability for change (either internally or externally) is achievable [28]. Shyness is correlated with negative attribution styles, whereby the person perceives limited control. In shy individuals, causal attributions are perceived to be resistant to change, and as such, negative outcomes are expected [29].

In a study of shy college students who were compared to a matched sample of non-shy students, each participant was asked to complete a 10-item attributional measure that contained a situation with either a positive or negative outcome [29]. Each item was related to one of three situations: performing a task, close interpersonal relationships, or initiating new relationships. Each item required that participants imagine that the particular situation was happening.

The researchers examined the extent to which each participant internalized the outcomes of a situation, how each generalized the causes to real-life situations, the likelihood of each situation actually happening, and the potential impact of the situation [29]. The authors found shy participants were more likely to attribute the results of positive scenarios to circumstances in which they lacked personal control. For instance, friendships were established at the workplace because co-workers were friendly, not because the individual was likeable or made an effort to make friends.

In the negative scenarios, shy participants significantly ascribed imagined outcomes to their own stable behavioral patterns [29]. In these situations (e.g., "You gave an important talk, and the audience reacted negatively"), the degree to which a shy participant placed blame on him/herself for negative situations was more significant than credit for the positive. The authors reasoned that shy persons tended to expect both negative consequences and undesirable outcomes, especially in unfamiliar situations. This was primarily due to negative self-talk. Consequently, shy participants had difficulty acknowledging success. These attributions further promoted socially inhibiting behaviors and increased the likelihood of depression and/or anxiousness.

Another study examined how the practice of self-compassion may be used to reduce anticipatory anxiety (e.g., giving a speech) [30]. Self-compassion consists of three distinct parts: self-kindness, common humanity, and mindfulness [30]. All three are used to ground individuals instead of lapsing into self-criticism, identifying with negative factors, and believing that they are alone in their faults. In this study, those who were more socially anxious benefitted more from and were more receptive to self-compassion training than those who were less anxious [30]. Another important aspect of shyness is its ability to resolve over time and in certain situations [8; 31]. One study consisting of 205 university students used online questionnaires and assessments to evaluate the students' friendship networks and traits that predicted friendliness. Three Big Five traits were associated with friendship selection: extraversion, agreeableness, and openness [31]. Extraversion was the most important factor in selecting friends, but it did not predict being selected as a friend over time [31]. Agreeableness did predict selecting and being selected as a friend.. Similar degrees of openness were also found to play a role in friendship selection [31].

IMPLICIT SELF-THEORIES

Two shy people may respond differently to a given social situation, and it is believed that perceived control of this personality trait may be responsible [32]. A shy person may minimize his or her shyness based upon cognitive mediation, motivation, and self-awareness. This implicit theory of shyness is based on both entity theorists, who believe that personality is fixed, and incremental theorists, who believe that personality is dynamic. For example, a shy person would likely fail socially if he or she believed that shyness was unchangeable. Conversely, a person who felt that shyness was controllable could socially succeed.

Three related studies were conducted to examine differences in shy behaviors in individuals who were either entity or incrementally oriented [32]. Each study was conducted in colleges, although the participants' ages varied from late teens to early 40s. Each participant was subjected to a series of measures addressing beliefs about shyness and tendencies to avoid or approach social situations. In addition, the authors either videotaped an interaction and/or the individual believed that a videotaped interaction would occur. The results were varied, although some similarities between incremental-and entity-oriented participants were noted.

First, incrementally oriented individuals had an increased awareness of shyness and were motivated to overcome it [32]. Second, those incrementally oriented persons reported less intense physiologic responses during videotaped interactions. In contrast, those who qualified as entity-oriented reported applying techniques to escape social situations, especially if the person also had low self-confidence. In addition, entity-oriented persons displayed more socially avoidant strategies during videotaped interactions later witnessed by outside observers. Socially avoidant strategies included asking questions about the other person to avoid disclosure, avoiding eye contact, and looking interested to avoid speaking.

Despite the differences, several similarities among the shy individuals were also noted [32]. Regardless of incremental or entity orientation, shy individuals tended to be concerned about making a positive impression on the interactive partner. Although it was more significant in the entity-oriented persons, outside observers also noted a certain degree of nervousness in all the participants. Finally, shy participants were generally concerned about perceived negative consequences, such as being liked and/or being judged. This finding reinforced the external locus of control explanation as noted by earlier attribution studies [29; 30].

A shy individual will often attribute perceived social failures to something within the self. Specifically, scenarios with positive outcomes were externally dismissed as luck or chance, while those with negative outcomes resulted in self-blame [29; 30]. The magnitude of this belief was dependent upon how the individual perceived shyness; cognitive mediation in social situations is instrumental [32].

GENETIC ORIGINS OF AND PHYSIOLOGIC RESPONSES TO SHYNESS

In addition to attachment and attribution, genetic and neurologic factors also impact social shyness. This is evidenced by observations of the parents of shy children and by utilizing technology to measure the brain reactivity of young children [2; 3; 4].

Although much of the research on shyness focuses on environmental etiologies, there is some evidence attributing the origins of shyness to a socially fostered genetic predisposition [4; 33]. In one study, parents completed measures of current and general affect states, a three-trial circle drawing task that measured motivational behaviors, and six personality scales that investigated traits related to shyness (i.e., degree of extroversion, sociality, and avoidance) [4]. In addition, the parents also had an electroencephalographic (EEG) recording cap and electro-oculogram electrodes fastened for the purpose of measuring physiologic responses to anxiousness.

The authors concluded that parents of inhibited children tended to display higher levels of anxiety [4]. This parental anxiety was positively correlated with behavioral inhibition of the children in the study, suggesting a biologic influence to shyness. This anxiety was especially triggered in unfamiliar situations. As a consequence of anxiety, parents with inhibited children displayed decreased extroversion, increased social avoidance, and shyness. The authors related that the occurrence of shyness in children was based on a diathesis, whereby behavioral inhibition was both genetic and environmentally triggered. While parents are not seen as the sole cause of a child's shyness, they are believed to establish conditions in which shyness is possible [33].

In a physiologic study of personality, researchers examined brain reactivity to emotional stimuli and its impact on personality [2]. This study was based upon the Big Five factor personality traits, specifically extraversion and neuroticism. The study involved 68 participants (46 women and 22 men) who assessed the emotional states of muted video clips. The authors noted that the bilateral medial temporal gyrus (MTG) was identified as a key region in the processing of emotional faces and that this region correlated with neuroticism scores [2]. Female participants had much stronger activation differences between emotional and neutral facial expressions in the left MTG [2]. Further, the higher the neuroticism score, the stronger the action in the bilateral MTG for both genders [2]. In the right MTG, activation to positive stimuli was correlated with neuroticism. This neuroticism factor is considered especially important as it is linked to feelings of anxiousness and apprehension [2]. As a personality trait, neuroticism has been described as feeling lonely, even while in the presence of others, and feeling worried and tense without identifiable cause [34]. Other research has shown that those who score higher in measures of neuroticism may be more likely to react with fear, the emotion that maintains shyness [3]. Cognitively, the specific fears or worries that reinforce shyness are related to how a shy person believes he or she is perceived by others [35].

Physiologic and neurologic differences were noted in shy and non-shy preschool students in a study of how each population processed emotion [3]. Theall-Honey and Schmidt hypothesized that shy children would display significantly greater brain activity in the right anterior portion of the brain (as indicated by an EEG) when watching emotionally stimulating movie clips [3]. In addition, the authors predicted the baseline heart rate of shy children would be higher when compared to non-shy peers. Overall, they found that shy children displayed significantly stronger EEG activity in the right central part of the brain while at rest when compared with non-shy children [3]. The authors concluded that shy children showed the strongest EEG responses with clips that elicited fear. This finding is important, as fear is the emotion that maintains shyness. Furthermore, shy girls displayed a pattern of significantly higher right frontal EEG activity both without emotional stimulation and in response to clips that evoked fear and sadness when compared with shy boys. Shy children perceived the video clips with negative emotions more intensely when compared to the non-shy children. Finally, all children assessed as shy showed an overall higher baseline heart rate without stimulation than non-shy children.

SHYNESS AND GENDER DIFFERENCES

Research consistently indicates that existing gender differences impact degree of shyness [35; 36]. Gender-specific consequences have been noted as a result of these differences [31; 37]. The resulting behaviors range from delayed romantic involvement and physical aggression in boys and men, to difficulty concentrating as a result of socially triggered anxiety in girls and women [36; 38].

Research has indicated that shy boys are more prone to depression as they transition from the end of high school to the end of the first semester at college than girls [37]. This is generally due to their difficulty adjusting to the demands of college and being more preoccupied with their parents compared to girls. Furthermore, as discussed, physiologic differences have been identified between male and female preschoolers, specifically in brain reactivity to unpleasant emotions [3].

In another study, the authors asked that participants engage in an unstructured conversation, recorded on videotape, and then complete a self-report questionnaire [35]. Participants viewed their own videotaped conversations and completed a thought-feeling measure about the conversation and the extent to which each participant enjoyed the interaction. Finally, independent evaluators examined the videotapes.

For both genders, shy individuals viewed thoughts and feelings concerning social skills more negatively than the non-shy controls [35]. Specific negative social cues included a closed body posture and decreased amounts of eye contact compared to the non-shy sample. Women tended to assume more of a shy role in same-sex interactions compared to men, who likely felt more societal pressure with initial heterosocial interactions. The women's shyness was related more to dynamic, nonverbal behaviors, such as the amount of eye contact, displaying a pleasant affect (e.g., smiling, laughing), and the amount of active listening.

As with women, male shyness was related to both verbal and nonverbal behaviors [35]. This specifically included both eye contact and thoughts and feelings of how they were perceived by women.

Secondly, the shyer a male participant, the less frequently he spoke and the less amount of time he spent speaking. Shy men tend not to initiate and tended to discourage eye contact with their partners. While reviewing thoughts and feelings of the shy man, it was found that he was overly concerned about his anxiety and stress while interacting with a partner. Consequently, he devoted less energy to the conversation, which induced anxiousness in his partner. When compared to the women in the study, men reported less positive self-talk.

Another study examined gender differences in shyness with 82 male and 82 female college students [36]. Each student was required to complete several measures on shyness and desire for social ability. In addition, each completed measures on the believed ability to control temperament (e.g., concentration, focusing, inhibition), emotions, and interpersonal stressors. A designated peer was also required to assess the participant using similar measures. Shy participants, regardless of gender, exhibited lower levels of constructive coping techniques [36]. This included taking additional actions to solve problems, planning, and seeing positives in a situation viewed as negative. Also, both genders displayed a greater degree of physiologic reactions, negative cognitions, and levels of anxiety and personal distress. In addition, women had a strong correlation between attention shifting (characterized by multi-tasking and difficulty concentrating) and shyness. A negative correlation was found between the degree of shyness and acceptance coping, which was defined as the ability to accept present reality and trusting in a higher power. Through measures completed by friends, the researchers found that shyer men tended to conceal their emotions, and thus, they were more emotionally restrictive and likely to hide feelings if upset. Secondly, shy men were high in measures of inhibition control, which resulted in hindering emotional experiences. Behaviorally, inhibition control resulted in shy men being less likely to interrupt others while speaking. Consequently, shy men had difficulty contributing to a conversation.

Male shyness has been linked to consequences of varying severity, including difficulty initiating romantic relationships [31]. It is important to acknowledge and study shyness in men despite a potential unwillingness due to the vulnerability of previously discouraged self-disclosure. More critically, research has indicated a type of cynical shyness in men. In cynical shyness, men displayed a strong desire for social involvement but lacked social skills and, consequently, were repeatedly rejected by peers. As rejection re-occurred, the unexpressed emotional pain intensified, resulting in anger and hatred. Men with cynical shyness who lacked coping skills and/or resilience have been found to be more likely to commit acts of violence [38].

SHYNESS AND COLLEGE-AGED STUDENTS

The end of high school and beginning of college are the most obvious and clearly identifiable milestones in departing from parental attachments and experiencing new independence, and shyness has been shown to be strongest at pivotal points in a person's life, such as starting college [37; 39]. The major task at this stage is to satisfy the need to establish a new social network; however, this has the potential to create emotional vulnerability and intensify shyness [24]. However, friendships may moderate this change [24]. Consequently, shy individuals are generally at a social disadvantage when starting college and tend to spend greater amounts of time on academic activities than their non-shy counterparts, with higher levels of reported loneliness and depression [23].

A longitudinal study examined shyness in adults 18 to 35 years of age and high-school students 16 years of age. Adults in the study scored higher on shyness scales than the adolescents, even after controlling for gender, race, and factors [40].

In one study of the relationships between happiness, loneliness, and shyness in college-aged individuals, the authors concluded that shyness correlates negatively with the number of friends and the size of the social network [41]. A richer social network correlates positively with optimism and well-being. Although statistically insignificant, a trend was noted in both genders, with a stronger trend in men. Due to the impact on quality of life, shyness and loneliness could potentially negatively impact an entire college career. Furthermore, if shyness and loneliness were dispositional, it could have a lifelong negative impact. This resulting consequence of ongoing shy behavior is labeled cumulative continuity [39].

It is important to note that there is evidence to suggest that some shy students will become increasingly adjusted to the demands of the college semester and more comfortable as time progresses [42]. Students who become acclimated to a new semester often display situational shyness, while those consistently shy and lonely experience dispositional shyness [5; 6].

TREATMENT OF SHY INDIVIDUALS

In some cases, treatment of shy individuals will focus on the clinical manifestation, such as anxiety disorders or social phobia. However, individuals with lower levels of shyness for whom the condition nonetheless is negatively affecting their lives may also benefit from intervention.

Although social phobia is an impairing psychiatric disorder, beyond normal human shyness, the treatment approaches for shyness and social phobia are similar, but because there is a clear clinical picture of social phobia, more research has focused on this condition [43; 44]. The most common approaches include cognitive-behavioral therapy, systematic desensitization, and skills training, including assertiveness training and positive affirmations. The Stanford/Palo Alto Shyness Clinic has identified seven approaches to treating shyness, which may be applied to each individual in various combinations [44]:

- Social skills training
- Simulated exposures to feared stimuli
- Flooding (exposure to the feared stimulus until elimination of reaction)
- In-vivo exposures
- Communication training
- Assertiveness training
- Thoughts/attributions/self-concept restructuring

The American Occupational Therapy Association recommends a structured recreation and activity program for children with extreme shyness to increase extraversion and decrease timidity.

(https://www.guidelinecentral.com/summaries/occupational-therapy-practice-guidelines-for-mental-health-promotion-prevention-and-intervention-for-children-and-youth. Last accessed January 22, 2021.)

Strength of Recommendation/Level of Evidence: B

In the past, the major focus of treatment for social phobia was on behavioral therapy, including desensitization. However, a cognitive-behavioral approach, including both group and individual therapy, with an emphasis on changing individuals' negative cognitions, is used more commonly today, with research supporting the efficacy of this type of treatment plan [45; 46; 47]. In some patients, the inclusion of pharmacotherapy, utilizing an anti-anxiety medication, may be indicated.

CONCLUSION

From an internal experience, cognitive dysfunctions in shy individuals result in a tendency to be self-conscious, uncomfortable, and anxious while socially engaged [3; 5; 6; 7]. Shy individuals tend to focus excessively on making a positive impression on others. In addition, negative self-talk plays a role in shyness [32]. One clear cause of shyness has not been identified, but it is believed to be the result of a combination of genetic and environmental factors. It is important to remember that physiologic differences have been documented in shy and non-shy individuals [2; 3; 4].

Shy persons' internal discomfort results in external behaviors that can impact long-term functioning, including difficulty acknowledging success, difficulty expressing oneself socially, and increased likelihood of experiencing periods of loneliness, anxiety, and/or depression [29; 41]. External behaviors may be more subtle and include a closed body posture and decreased amounts of eye contact [35]. The culmination of both internal and external experiences creates potentially complicated adjustment to social milestones. As an example, negative self-talk, uncomfortable physiologic sensations, and behavioral inhibition can impact an entire college experience [41].

As clearly established in the literature, shyness is much more complex than the common use of the term implies. It is an often frustrating condition with roots in attachment and attribution theories, although biology, physiology, and cognitive factors also contribute. Despite the roots of shyness, the results of the unseen manifest throughout the life of the individual and result in both internal discomfort and external consequences.

GLOSSARY

Attributional style: Attribution style is part of a motivational theory. Attribution is comprised of three factors, each falling within a continuum: locus of control, stability, and controllability.

Contextual theory: A theory of personality that states that a personality can evolve through circumstance. According to the contextual model, personality is subject to change based upon both critical life periods and the gender of the individual.

Cumulative continuity: An interaction of factors and/or affective states that results in ongoing shy behavior.

Cynical shyness: A type of shyness, more common in men, whereby there is a strong desire for social involvement despite a lack of social skills, causing repeated rejection by peers. This resulting and unexpressed emotional pain increases to the point of intense anger and hatred.

Eight stages of psychosocial development: A developmental theory that states that personality is developed throughout life in eight stages.

Implicit theory of shyness: A theory of shyness with two components (entity and incremental) that helps explain how some people can or cannot minimize shyness.

Neuroticism: One of the "Big Five" factor personality traits associated with shyness. It is linked to feelings of anxiousness and apprehension.

Plaster hypothesis: A concept within the "Big Five" personality factors that states personality is based upon biology and remains relatively stable throughout life.

Primary attachment: Occurs during the first stage of Erikson's psychosocial development [20]. Primary attachment begins at birth when infants rely upon their mothers to provide comfort. With successful primary attachment, the child later adaptively adjusts to the environment.

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Evidence-Based Practice Recommendations Citation

Bazyk S, Arbesman M. *Occupational Therapy Practice Guidelines for Mental Health Promotion, Prevention, and Intervention for Children and Youth*. Bethesda, MD: American Occupational Therapy Association, Inc.; 2013. Summary retrieved from Guideline Central at https://www.guidelinecentral.com/summaries/occupational-therapy-practice-guidelines-for-mental-health-promotion-prevention-and-intervention-for-children-and-youth. Last accessed January 22, 2021.