

The Impact of Social Anxiety on Teamwork Behaviors in Adolescence

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Abstract: Research Background: Social anxiety disorder (SAD) is one of the most prevalent psychological disorders in adolescence, which can essentially limit the effectiveness of social events that can help facilitate peer relationships. This study aims to investigate the effects of social anxiety on between-adolescent relationships, with a particular focus on teamwork behaviors. Methods: The Social Phobia Inventory (SPIN) and the Teamwork Attitude Questionnaire (T-TAQ) were conducted among 45 participants. Results: Our analysis showed no significant correlation between the level of social phobia and teamwork behaviors. Conclusions: We conclude that there is a correlation between social phobia and teamwork performance, while without statistical significance. Future work could improve sample size and optimize T-TAQ to increase the credibility of the present research.

Keywords: Social anxiety disorder, teamwork behavior, adolescents

1. Introduction

Social anxiety disorder (SAD), or social phobia, is one kind of anxiety disorder that used to be largely neglected by the medical community and hadn't been noticed until about ten years ago. Individuals with social anxiety disorders usually behave shyly when they meet or communicate with new people and stay silent in groups. When they interact with other people, especially people that they are not familiar with, they might show overt evidence of discomfort, like blushing or avoiding eye contact with others. They look forward to being companied by others but fear attending social occasions simultaneously because they are afraid to be hated or make people feel unlikable, stupid, or uninteresting. These people are typified by "low self-esteem and high self-criticism" [1].

Social anxiety disorder is different from usual shyness on social occasions. It's a typical trait to behave quietly in social events, and it can't be considered pathological just based on this behavior. Only when shyness is detected that it has a detrimental impact on functioning will it be regarded as a social anxiety disorder. And this disorder has a connection with other mental diseases, like panic disorder or agoraphobia, obsessive-compulsive disorder, etc. In medical settings, they will only reveal their symptoms upon direct questioning, and they will hardly tell their symptoms to others without asking because they feel embarrassed about telling others, or it can be said that it's a kind of discomfort when facing the authorized figures.

Social anxiety disorder has an early onset. Prevalence rates are about 10% among adolescents when tested at the end of adolescence [2-4]. Many cases of this anxiety disorder begin in childhood or early adolescence. Social anxiety disorder is the most common reason for children's rejection of

going to school. It is the only anxiety disorder proven to be associated with dropping out of school early. However, children with social anxiety disorder don't show evidence of high rates of childhood maltreatment or other specific forms of early-onset psychosocial adversity. However, evidence shows that a heritable factor called behavioral inhibition is one of the antecedents of social anxiety disorder. In this case, this anxiety disorder can be familial and has a moderate heritability.

Social anxiety is uncommon in early childhood; its incidence rate increases during adolescence, and the median onset age is about 13 years old [5]. The increased incidence rate in adolescents is reasonable because this period is when people are moving from a unique family reliance and learning how to interact and get along with peers in a way that will set them up for the rest of their lives. For most people, it's the period that they become increasingly independent of their parents and reliant instead upon their peer group. The core part of this kind of social reorientation is particular neurocognitive abilities. The increased self-consciousness and sensitivity to peer influence in adolescents will all lead to increased vulnerability and the emergence and maintenance of social fears [6]. During adolescence, changes at various levels, including neural circuitry, information processing, and the social environment, will lead to a short-term increase in social fears for most people. Brain maturation and social changes are related to the vulnerability to developing and maintaining social anxiety disorder.

According to Clark and Well's Cognitive Model of Social Anxiety [7], negative evaluation and self-focused attention are essential in maintaining social anxiety disorder. The model shows that people with social anxiety disorder firmly believe in the importance of making a good impression on others. In contrast, they think that they always misbehave [8]. This model suggests that when these individuals get into an unfamiliar social occasion, they will shift their attention to a predominantly internal focus due to their high expectations of themselves. However, this internal focus will lead to ignorance or failure to observe that others respond to them in a generally positive attitude or manner. At the same time, the internal stress will increase their sensation of fear. Due to the inner guide and the ignorance of others' positive attitudes, individuals will easily overestimate their anxiety. This will intrigue the use of safety behaviors, which are motivated by the desire to avoid or minimize the negative consequences of fear. Safety behaviors included overt behavior and mental operations. Some of them are more about avoidance, like avoiding eye contact, avoiding talking about some specific topic, or just talking less. Some are about putting effort into making a good impression, like preparing the content they're going to say before or checking what you are coming across. But these safety behaviors are useless in some ways. They will not drive other people's attention away from the individuals; they will only directly cause the feared symptoms and increase the anxiety. Only avoidance will result in a negative impact on other people's minds [9].

2. Method

2.1. Participants

To explore the research, some questionnaires were spread out among young people. The participants were 45 young people (27 girls, 61.3%). Their ages ranged from 15 to 24 ($M=17.59$, $SD=1.79$). 56.8% of the participants are 17, and 70.4% are juveniles. All the participants are high school students or undergraduates. Most of the participants came from China and grew up in China.

2.2. Measures

Social Phobia Inventory (SPIN)

The SPIN is a self-report inventory designed for testing the anxiety symptoms related to SAD. It is a 17-item questionnaire that can be used to examine the probability of whether the participants will have a SAD. This questionnaire used a 5-point Likert-type scale, and the result of the score ranges

from 0 to 68. [10] The subscale evaluated whether people have SAD from fear, avoidance, and physiological symptoms related to the SAD. Twenty scores were considered as a cutoff value, indicative of anxiety, and a higher score meant the severity of the SAD was higher.

Teamwork Attitude Questionnaire

The T-TAQ was used to measure individual attitudes about the core components of teamwork. This questionnaire was divided into five parts: team structure, leadership, situation monitoring, mutual support, and communication. The T-TAQ was usually used to assess specific needs within the unit or health care institution [11]. The research picked the three parts of leadership, mutual support, and communication as a new questionnaire to test the participants' attitudes toward teamwork. This questionnaire used a 5-point Likert-type scale; the score range for each part is 5 to 25, 4 to 20, and 4 to 20. The higher score meant the participants had a more positive attitude toward teamwork.

2.3. Statistics

Statistical Package for the Social Science (SPSS)

SPSS was used for complex statistical data analysis. SPSS 27.0 was used for all the comments. The demographic information of the participants was collected. Correlational studies (, 2-tailed) were performed for all the subjects between their levels of social anxiety and teamwork factors (including leadership, mutual support, and communication).

Anxiety disorder is the third most common and incapacitating mental health disorder after depression and substance abuse. Because SAD will bring objective outcomes (like days of being lost), SAD is ranked among the top chronic disorders [12,13]. Compared to children, adolescents have a higher rate of getting SAD. According to the DSM-5, the prevalence of SAD has decreased as the age increases, with a median onset age of 13 years old [14]. Unlike adults, children with SAD generally have symptoms like headaches, stomachaches, or nausea due to anxious emotions. SAD will lead to fewer friendships, underachieving in school, low self-esteem, and social skills deficits. According to the clinical interviews, Burstein et al. (2011) and Essau et al. (1999) reported a SAD prevalence among adolescents of 8.6% and 1.6%, respectively. [3,11] As for the self-report questionnaires, another assessment method that can measure the prevalence rates, the reported rates have ranged from 3.2% to 19.9% [15-20]. Based on the latest research about SAD, it is evident that SAD influences adolescents' behavior and emotions, especially in a group. However, there is research focused on the interaction between SAD and how it influences explicitly people's behavior in teamwork. Teamwork has become more and more prevalent in class in recent years. As the SAD has increased these years, the importance of researching the interaction of cooperation and SAD becomes a necessary problem that scientists and psychologists need to figure out. This paper will explore how the SAD impacts some specific teamwork factors. This research can help to find how serious SAD will impact adolescents' behavior and ideas about teamwork, to help scientists and psychologists have some inspiration from these factors and invent some new cure methods for SAD.

This research aims to explore SAD's impact on adolescents' teamwork behavior. The study used the SPIN and T-TAQ to measure the probability of whether they will have an SAD and how they think about different factors in teamwork. Then, the data will be collected using the SPSS to calculate the correlation between the SPIN value and the three elements of collaboration. This paper will discuss the background information and explain the specific method used. The processed results will then be presented to see whether SPIN will genuinely influence the three parts of the teamwork and to what extent it will influence. According to the existing theory, we hypothesized that SAD would cause participants to have a negative attitude and behavior in the teamwork.

3. Results

3.1. Descriptive Information

According to the results from the questionnaire, over 59% of the participants got a SPIN value, which is higher than 19, and this did not differ by gender. Among them, 65.38% of the participants indicated having social anxiety are female, and 34.62% are male. Girls (60.7%) have a higher social anxiety rate than boys (56.2%). Regarding teamwork, the two genders show a similar result in the three different positions.

Table 1: Means and Standard Deviations of Variables by Gender

| | Female(N=27) | | Male(N=18) | | Overall(N=45) | |
|-----------------------|--------------|-------|------------|-------|---------------|-------|
| | M | SD | M | SD | M | SD |
| SPIN | 25.82 | 12.84 | 24.25 | 15.54 | 25.25 | 13.73 |
| Leadership | 19.53 | 3.51 | 19.5 | 3.26 | 19.52 | 3.38 |
| Mutual support | 12.07 | 1.92 | 12.37 | 1.92 | 12.18 | 1.99 |
| communication | 17.78 | 2.11 | 13.3 | 2.12 | 13.7 | 1.79 |

Table 2: Pearson Correlation between SPIN and teamwork behavior

| | r(correlation) | p(significance) | N |
|--------------------------------|----------------|-----------------|----|
| SPIN and leadership | -.134 | .386 | 44 |
| SPIN and mutual support | -.008 | .959 | 44 |
| SPIN and communication | -.142 | .358 | 44 |

3.2. Correlations

The correlation between SPIN value and three different parts in teamwork was examined and calculated to aid the analysis. Pearson correlations (2-tail) were conducted on the SPIN value and the three areas of teamwork, mutual support, and communication. For the leadership (M=19.52, SD=3.38) part ($r=-0.134$, $p=0.386$), the mutual support (M=12.18, SD=1.99) part ($r=-0.008$, $p=0.959$), and the communication (M=13.7, SD=1.79) part ($r=-0.142$, $p=0.358$), no significant correlation was found for SPIN values and leadership, mutual support and communication part in the teamwork. For each part, both leadership and communication had a weak negative correlation with the SPIN value, and mutual support had almost no correlation with the SPIN value. This result did not fit into the expectation that the SPIN value would influence participants' behavior in teamwork as it had no significant and strong correlation with all three parts that this research tried to explore.

4. Discussion

Aimed to process the research, we handed out the questionnaire, which included the SPIN and T-TAQ among 45 young people, and collected the data we got from it. The results collected and analyzed indicate that the SPIN value has no significant correlation with leadership, mutual support, and communication. Both leadership and communication have a weak negative correlation with the SPIN value; mutual support does not correlate with the SPIN value. It is shown that the SPIN value, or the probability of getting SAD for the participants, has a relatively low correlation with influencing participants' behavior about how they communicate or talk with others when doing group work. As for the other two modules, the probability of getting SAD may slightly influence their behavior about how they consider leadership and mutual support. Still, due to the weak correlation, this influence is relatively doubtful and needs further research to confirm that. This result did not follow the hypothesis

and showed a different effect from our expectation. This probably was caused by the small sample size and some methodological inaccuracies.

Many factors in this research limit the generalizability of the results. The sample size is one of the leading causes of the limitation. This research only contained 44 samples, and the small population led to inaccurate results and no significant correlation. The most prominent end of the method part is the T-TAQ. There's no particular questionnaire designed just to measure people's teamwork behavior and attitude from a general perspective. This questionnaire is designed to measure the teamwork attitude of a medical team. So, it is significant to adjust the questionnaire and make it a proper questionnaire for young people. Moreover, even though people show a positive attitude in this questionnaire, they may behave differently when genuinely in a teamwork situation. Some people with social anxiety may think that a leader needs to communicate more with their teammates, but when they do this, they may fear talking with others.

This research helped to show that SAD will impact people's behavior in teamwork, although the impact may not be noticeable. It reminded us that when we look at SAD, we can consider it from the perspective of teamwork and start from here to think about whether any new kind of therapy can be invented from the teamwork perspective. Also, it provided a new way for people to distinguish whether the person's behavior looks like a SAD patient.

Further research is needed to establish a proper method to test or measure participants' genuine attitude about teamwork in real-world situations, how to monitor the participants' behavior and the new standard or cutoff line of having a positive attitude toward collaboration. And it is also essential to find more participants. I suggest that the sample be chosen by random selection and repeat the random selection several times to increase the accuracy of the results. The accuracy of the results from this research needed to be reconsidered with a new and suitable method for observing people's teamwork behavior and attitude.

5. Conclusion

This research aimed to identify whether the probability of getting SAD will influence participants' behavior during teamwork. Based on the quantitative analysis of the teamwork value in response to the SPIN value, it can be concluded that there is no significant correlation between the SAD and participants' behavior in three different modules of teamwork. These results indicate that the severity of SAD for the participants will not largely influence their behavior and attitude toward collaboration.

The results were not in line with the hypothesis. This probably was caused by the difference between people's thinking and real-life behavior and the pertinency of the T-TAQ questionnaire. At the same time, this research raised a new way of considering SAD, reminding us that the therapy method for SAD can be regarded from the perspective of teamwork behavior.

To better understand the implications of these results, future studies could address the design of a questionnaire that is specified for observing the general teamwork behavior and attitude while considering the limitations of the differences between mental thinking and physical behavior.

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