

# Perfect Imperfection: Findings Between Friend-Specific Perceived Pressure for Perfection and Self-Reported Anxious Symptoms Among College Students

DAVID FARUGIE  
KAILEY FOSTER  
MAGALIEL MADRIGAL  
JESSICA PACHECO DIAZ  
LEIDA TOLENTINO  
*SANTA BARBARA CITY COLLEGE*

The current study investigates friend-specific perceived pressure for perfection (PPP) and self-reported anxious symptoms among college students. Prior research has suggested an association between PPP, psychopathological disorders, and maladaptive behaviors. For our survey, we utilized a novel PPP scale tailored to young adults and the GAD-7. From that data (N = 63) participants recruited from Santa Barbara City College, the survey found a significant correlation between friend-specific PPP and self-reported anxious symptoms. Following the survey we conducted a between-subjects experiment (N = 130) that suggests that PPP may cause anxious symptoms. These findings demonstrate the importance of addressing friend-specific PPP in clinical interventions aimed at reducing anxious symptoms as well as perfectionism research as a whole. Additionally, our survey contributes a novel scale for assessing friend-specific socially prescribed perfectionism for future research.

**Keywords:** Perfectionism, Anxiety, College Students, Socially Prescribed Perfectionism

**DOI:** <https://doi.org/10.60690/29jjy459>

Socially prescribed perfectionism is a multifaceted concept encompassing high standards and critical self-evaluations predicated on relationships where a subject views a pressure to maintain these attributes. This consequently, has deleterious effects that can contribute to relationship dysfunction, and maladaptive coping not only in the one holding the belief but also in their social interactions and relationships (Flett et al., 1997; Hewitt et al., 2006, 2018 as cited in Kim et al., 2024). This has garnered significant attention within social psychology and behavioral science in recent years. This phenomenon is particularly consequential among college students where academic and social pressures intersect immensely. Moreover, the concept of Perceived Pressure for Perfectionism (PPP), which entails elevated levels of friend-specific socially prescribed perfectionism within friendships, is linked to nuanced variations of socially prescribed perfectionism within the multidimensional framework of perfectionism theory (Hewitt & Flett, 1991). Socially prescribed perfectionism is more commonly associated with interpersonal conflict (Mushquash & Sherry, 2012 as cited in Kim et al., 2024), depressive symptoms (Smith et al., 2016 as cited in Kim et al., 2024), and problematic drinking (Bardone-Cone et al., 2012 as cited in Kim 2024).

Furthermore, in relatively recent epidemiological surveys, the lifetime prevalence rate of anxiety disorders ranges from 4.1% to 6.6% (Lépine, 2002). In a meta-analysis of epidemiological anxiety studies the sex-specific 1-year and lifetime prevalence rates were generally found to be about twice as high for women, compared with men, and fell primarily in the ages of 18-64 (Somers et al., 2006). However, since the COVID-19 pandemic, there has been an observed threefold increase in anxiety rates in the general population (Bueno-Notivol et al., 2021; Santabarbara et al., 2020 as cited in Qi et al., 2022).

Perfectionism has repeatedly been associated with relationship problems, problematic drinking and difficulty handling stress, and depressive symptoms (Chang & Rand, 2000; Hewitt, Flett, Sherry, & Caelian, 2006; Mackinnon et al., 2012 as cited in Mackinnon et al., 2014). Additionally, studies examining multidimensional perfectionism and anxiety found that maladaptive perfectionism is associated with higher levels of anxiety (Gnilka et al., 2011; Stoeber et al., 2014). Finally, in addition to these Tian et al., (2024) demonstrated maladaptive perfectionism was positively associated with psychological distress and career indecision (Tian et al., 2024).

Our current study aimed to advance the research of friend-specific socially prescribed perfectionism. Many studies presuppose that either the presentation of PPP derives strictly from one friend or assume that PPP derives from lower levels of friendship intimacy rather than vice versa- which leads to biased scales or inconsistent research. With this backbone, we devised a novel Friend Specific Socially Prescribed Perfectionism Scale (PPP) as we wanted to examine if the general expectations that are placed on individuals by their friends lead to a perceived pressure for perfection within friendships and if that positively correlates/results with high levels of self-reported anxious symptoms. In addition to a survey examining an association, we further conducted an experiment to examine possible causality between PPP and anxious symptoms.

H survey) Perceived Pressure for Perfection Within Friendships Is likely to be associated with high levels of self-reported anxious symptoms.

H experiment) Perceived Pressure for Perfection Within Friendships causes high levels of self-reported anxious symptoms.

R1) Will those with higher levels of PPP have higher anxious symptoms?

## Survey Methods

### *Participants*

The participants were N =63 students enrolled at Santa Barbara City College. This was a non-random convenience sample with neither gender nor specific age restraints. The participants were recruited from emails which were provided with a link to a survey on Google Forms. 17.5% of participants identified as male, 81% identified as female, and 1.6% identified as non-binary. Approximately 77.1% of the participants were aged 24 or younger, and 22.9% were 25 or older.

### *Design and Measures*

The final survey consisted of 22 questions: 3 covariates: age, gender, and an open-ended major question. 2 nominal questions, and two scales (totaling 15 interval Likert questions). The initial survey was peer-reviewed by 10 college students enrolled in our Research and Methods (*PSY 200*) course.

### *Friend Specific Socially Prescribed Perfectionism Scale*

To develop our novel PPP scale, we incorporated/alterd questions found in the Frost Multidimensional Perfectionism Scale (FMPS) (Hewitt & Flett, 1991) and Other-Oriented Perfectionism-Junior Scale (Hewitt et al., 2022), as well as adding our own to create an 8-question measure catered to a young-adult demographic (College students) and tailoring it to friend-specific socially prescribed perfectionism. Participants were required to respond to questions (e.g., “I am uncomfortable showing my friends that I am not perfect,” “What my friends think of my partner is important,” “I must always appear to be perfect to my friends”) with the available responses of an interval Likert scale (1 = Strongly Disagree and 5 = Strongly agree). While scales for friend-specific socially prescribed perfectionism have been used in prior research they

either have yet to prove acceptable internal reliability, have not been replicated, were used longitudinally, or were generally not how we wanted to operationalize this variable.

### *Anxiety Scale*

To assess our participants’ self-reported anxiety, we utilized the Generalized Anxiety Disorder-7 scale (GAD-7; Spitzer et al., 2006). Participants rate the frequency of experiencing these symptoms on a ratio Likert scale of 0-3 on how much they identify with each question (0 = Not at all, 1 = Several days, 2 = More than half the days, 3 = Nearly every day). The GAD-7 has exceptional reliability with a reliability coefficient of Cronbach’s  $\alpha$  of 0.895, greater than the recommended value of 0.80 (Dhira et al., 2021). Additionally, The GAD-7 has good construct validity with a KMO coefficient of 0.915 which exceeds the recommended value of 0.6 (Dhira et al., 2021). We used responses from the question “worrying too much about different things” from the GAD-7 for one of our Spearman’s Rho tests. Additionally, the cumulative scoring from the GAD-7 was used in an additional Spearman’s Rho in relation to the cumulative scoring from the PPP scale.

### *Procedure*

We first recruited participants with a flier that attracted our audience and also contained information about our research. This flier was distributed throughout multiple psychology courses at Santa Barbara City College. The participants were informed that they would complete an anonymous survey done on Google Forms through a QR code in our flier. In exchange, they could receive extra credit for participating (was to the discretion of their professor). The survey contained informed consent that ensured confidentiality, a trigger warning, a general outline of the goal, and other necessary information per APA and IRB regulations and guidelines. The survey included 3 covariates: age, gender, and an open-ended major question, 2 nominal questions, and two scales (totaling 15 interval Likert questions). The survey takes approximately 4 minutes to complete. Later we analyzed the results with SPSS using Spearman’s Rho and Chi-squared tests.

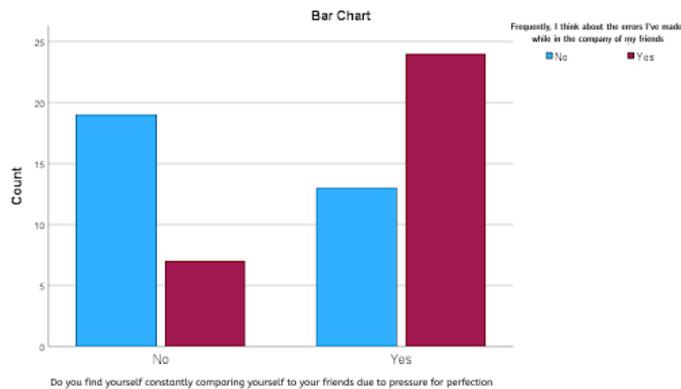
## Survey Results

A total of 63 participants completed our survey. The majority (81%) reported that they were female-identifying, while 17.5% of participants were male-identifying, and 1.6% were nonbinary-identifying. Of these 63 participants, roughly 43% reported that they were psychology majors. Of the other majors recorded, 16% of participants reported majoring in health-related fields, such as biochemistry, biology, and nursing, and 6% declared pursuing a business or communications degree. The remaining ~35% of participants had either recorded themselves as undecided or had differing majors, of which all other majors only made up  $\leq 1\%$  of the survey population. Given that the majority if not all of the participants are from psychology classes, it follows logically that nearly half were psychology majors. Moreover, considering that psychology courses are often a prerequisite for health-related majors,

it makes sense that a large portion of participants fell into this category. Additionally, for those outside of psychology and health majors, the interest in psychology common for introductory social science requirements likely played a role in their participation.

### Outcome 1

To examine the relationship between PPP within friendships and anxious symptoms we conducted a 2x2 chi-square test. This test allowed us to see if there was a relationship between the two variables. We had chosen two questions in our survey to represent each of our nominal variables, these being V1: “Do you find yourself constantly comparing yourself to your friends due to pressure for perfection?” (yes/no), and V2: “Frequently, I think about the errors I’ve made while in the company of my friends.” (yes/no). These questions enabled us to identify any relationship between the two variables through the chi-square test. 77.5% of participants who had answered yes to frequently thinking about the errors they have made while in the company of friends also reported yes to finding themselves constantly comparing themselves to their friends. In contrast, 22.5% of participants who answered yes to frequently thinking about the errors they have made while in the company of friends did not report constantly comparing themselves to their friends.



**Figure 1**

Thus, this difference was statistically significant:  $\chi^2(1, N = 63) = 8.795, p = 0.003$ .

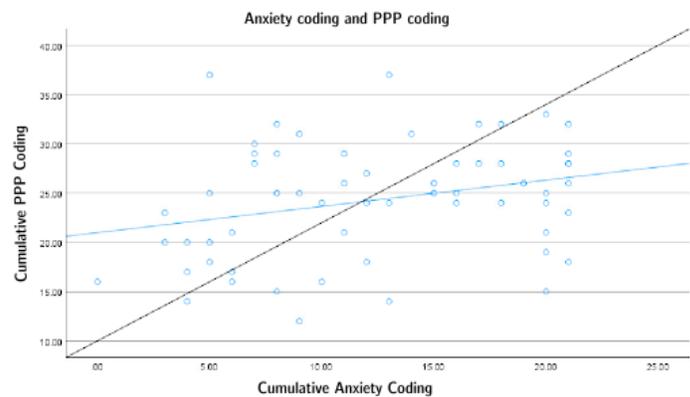
### Outcome 2

Following our 2x2 Chi-square test, we employed a Spearman's rho which we used to find a statistically significant relationship between V1: “I keep my faults to myself” and V2: “Worrying too much about different things”. Our V1, “I keep my faults to myself”, was from the PPP scale and thus response options were the aforementioned 1-5 Likert scale. As for our V2, “Worrying too much about different things” was from the GAD-7 thus, the response options were the aforementioned 0-3 Ratio scale. Our correlation coefficient was 0.080 with a P-value of .532. Due to the large P value, surpassing the alpha level (0.05) and a correlation coefficient far from 1, the analysis suggests a non-significant correlation between the variables assessing PPP and anxious feelings: ( $r_s(1) = 0.080, p = .532$ ).

### Outcome 3

Conducting another Spearman's Rho analysis, we decided to use the

coding of our PPP scale and the coding for the GAD-7 given by Spitzer (GAD-7; Spitzer et al., 2006). Among participants, 73% reported exhibiting moderate to high perceived pressure for perfection from friends (21-37). In contrast, 27% of participants scored low (10-20) on the PPP scale when it came to their perceived pressure of perfectionism from friends. As for the GAD-7 scores, 62% of participants reported moderate to severe anxious symptoms having cumulative scores of 10-21. Participants who scored on the low end of the GAD-7 expressed that they experienced little amounts of anxious feelings, less often, making up 38% of participants in our study. The correlation coefficient we concluded from our Spearman's rho analysis is significant at the .05 alpha level (0.289). Similarly, our P-value (.021) remained under the .05 level which represents a statistically significant result ( $r_s(1) = 0.289, p = .021$ ).



**Figure 2**

These two cumulative scales we used to determine the significance of PPP and anxious feelings have demonstrated a moderate positive correlation between PPP and anxious symptoms.

### Outcome 4

Lastly, to analyze the consistency of responses within the PPP scale we ran another Spearman's rho on two variables within the scale. While this doesn't necessarily contribute to showing correlational data between anxious symptoms and PPP, it allows us to evaluate internal consistency within our scale loosely. With this parametric test, we utilized the two variables. V1: “I keep my faults to myself” with V2: “I must always appear perfect to my friends.” The results showed 61.8% and 39.6%, respectively, answered 3 and above to the questions. This resulted in a correlation coefficient of .430 and a p-value of  $< 0.01$ . This suggested a statistically significant correlation: ( $r_s(1) = 0.430, p < 0.01$ ). Thus, this test suggests that there is a correlation between individuals keeping their faults to themselves and also feeling that they must always appear perfect to their friends. In addition to Spearman's Rho, we also conducted a reliability coefficient Cronbach's  $\alpha$  to assess the reliability of our PPP scale in its entirety. The obtained reliability coefficient Cronbach's  $\alpha$  was 0.71 demonstrating moderate reliability.

## Experiment Methods

### Participants

Our experiment sample consisted of (N = 130) students at Santa Barbara City College. The majority of our participants (77.7%)

identified as female, while 21.5% identified as male, and .8% identified as non-binary. More than half (61.5%) of our participants were between the ages of 18-20, 20.8% were participants between the ages of 21-23, and 14.6% were ages 25+, our smallest age demographic was 23-24 with 4 participants (3.1%).

#### *Design and Measures*

We ran a between-subjects experiment. Participants were asked whether their birthday was odd or even to be assigned to the experimental or control group. The complete experiment consisted of 2 covariates, 2 simulated questions, and 14 GAD-7 questions (7 per test).

#### *Independent Variable: A Perceived Pressure For Perfection Within Friendships*

Our independent variable was a perceived pressure for perfection within friendships. To induce this perception, we utilized a series of open-ended questions depicting simulated scenarios to elicit either a high perceived pressure or low perceived pressure for perfection. Both the control and experimental group's scenarios followed the same general premise: "Imagine you are part of a very close group of friends who have known each other for years. Recently, the group decided to organize a surprise birthday party for one of your friends... design the party with this in mind." However, the experimental group had the addition of "As the planning progresses, you notice a heightened expectation for the perfect party among your friends." Following this prompt participants were allowed to change their design after receiving a text message from one of their friends. The experimental group's prompt was "One of your friends messaged you while you were creating the party and said everyone is expecting this to be the best surprise party ever. Will you change your party design? If so, how?" while the control group's prompt was "One of your friends messaged you while you were creating the party and said they were really excited. Will you change your party design? If so, how?"

#### *Dependent variable: Anxious Symptoms*

To measure anxious symptoms we used the difference of the summation of the combined pre-test and post-test scores of the GAD-7. The GAD-7 consists of 7-point interval Likert scale questions (e.g., "Feeling nervous, anxious, or on edge", "Being so restless that it is hard to sit still", etc.) ranging from 0-3. We utilized this method as we wanted to evaluate the temporal precedence between groups and ensure that there was no selection effect in our experiment.

#### *Procedure*

Participants were recruited from an email distributed throughout multiple psychology courses at Santa Barbara City College from the Psychology Department. The experiment was to be completed through Google Forms from 4/19/2024 to 4/28/2024 through a link attached to the email. Participants were informed that there was potential extra credit as compensation for completing the experiment. Participants were greeted with informed consent to which they had to agree to participate. Participants were informed that the experiment is both voluntary and anonymous as well as making them aware of their ability to opt out at any moment while completing the experiment. Participants were notified of the potential risks of participating in our experiment. Including

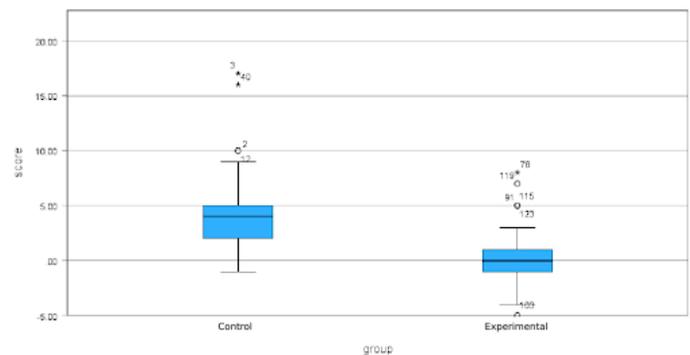
confidentiality, a trigger warning, a general outline of the goal, and other necessary information per APA and IRB regulations and guidelines. For both groups, the experiment included 2 covariates: age and gender, 2 simulated scenarios, and 14 GAD-7 questions (7 per test). The experiment takes approximately 10-15 minutes to complete.

#### **Experiment Results**

A total of 130 participants had completed our experiment. The majority (77.7%) reported that they were female-identifying, while 21.5% of participants were male-identifying, and .8% were nonbinary-identifying. The majority of participants ranged from the ages 18-20 making up (61.5%) of our experiment population. Those who had an odd-numbered birthday were put into our experimental group (N=66) and those with even birthdays were in our control group (N=64).

#### *Outcome*

A t-test was then conducted following our experiment to compare the differences in scores of pre-test - post-test in both our control and experimental groups using the GAD-7. There was a statistically significant difference in the pre-test and post-test scores based on the GAD-7 between the experimental group with the high-pressure simulated experience ( $M = .4545$ ;  $SD = 2.17$ ) and the control group in the low-pressure simulated environment ( $M = 4.17$ ;  $SD = 3.07$ ),



**Figure 3**

$t(128) = 7.985$ ,  $p = <.001$ . These results demonstrated that participants in the experimental group developed more anxious symptoms than those in the control group after completing the simulated scenarios. Thus, suggesting that Perceived Pressure for Perfection from friends causes anxious symptoms.

#### **Discussion**

In our survey, we aimed to establish an association between friend-specific perceived pressure for perfection (PPP) and anxious symptoms. After our survey, we conducted an experiment that aimed to establish a causal relationship between PPP and anxious symptoms. This discussion will interpret our findings with the consideration of existing literature, methodological considerations, implications, limitations, and future research.

#### *Interpretation of Findings*

Aligning with our hypothesis and research questions, the majority of results from our survey suggested a statistically significant correlation

or difference between PPP and anxious symptoms. The result that supported our hypothesis most discernibly was the coding between our novel PPP scale and the coding for the GAD-7. These results supported our belief that higher levels of friend-specific PPP are associated with more self-reported anxious feelings.

The experiment maintained the congruency established by the survey. The experiment allowed us to evaluate the temporal precedence of PPP and anxiety and the results suggested that PPP was the cause of the anxious symptoms. While limitations soon to be discussed were present, we believe by the extreme significance between the experiment and control group that there were no confounding variables responsible for the outcomes. Thus we were able to establish that friend-specific PPP causes higher reporting of anxious symptoms.

#### *Comparison with Previous Research*

While we are the first to establish a causal relationship between friend-specific PPP and anxious symptoms, our findings align with previous research. Past research has established the relationship between psychopathological disorders and PPP (Kim et al., 2024) and more specifically multidimensional perfectionism generally (Tian et al., 2024; Gnilka et al., 2011). Additionally, our study contributes to the existing literature by using a novel friend specific socially prescribed perfectionism scale tailored to young adults.

#### *Methodological Considerations & Limitations*

Several methodological considerations deserve discussion. First, by using a survey that relies on self-reporting, the possibility of self-desirability bias is a big factor. We attempted to mitigate this in both the survey and experiment by having completely anonymous responses and informing participants there is no right or wrong answer. While we hope to alleviate this bias, we can't completely relieve it. While the GAD-7 has good reliability and consistency, future research could employ multiple assessment tools not limited to the GAD-7 alone. Additionally, for sample recruitment, we used a non-random convenience sample from Santa Barbara City College which limits our generalizability as well as our external validity. Future research should aim to recruit diverse participants from different populations to mitigate these factors. Lastly, we used simulated scenarios for our experiment. Friendships are multifaceted intricate physical, emotional, and psychological relationships built over time. Our use of simulated scenarios might not be accurately representative of real friendships and their implications on an individual's mental health.

#### *Implications and Future Research*

Our findings have implications for clinicians targeting perfectionism and/or anxious symptoms. Clinicians who apply interventions that address friend-specific socially prescribed perfectionism and promote healthy coping, could mitigate anxious symptoms and enhance overall mental health. Additionally, future research should continue the study between PPP and anxiety as well as explore potential ways to help such as social support or coping mechanisms. Researchers interested in utilizing our novel PPP scale should contact David Farugie, dfarugie@gmail.com.

#### *Conclusion*

To conclude, our research was able to establish strong relationships between PPP and anxious symptoms. We encourage researchers to

continue exploring these variables and examine possible clinical interventions that can help mitigate the deleterious effects associated with PPP. We also implore researchers to inspect possible reductions to maladaptive perfectionism within friendships.

#### **Acknowledgments**

We would like to thank Dr. Leida Tolentino, our Professor and Co-chair of the Psychology Department, for her advice and help during our research process. We would also like to thank the Psychology Department and Santa Barbara City College for providing us with SPSS. Lastly, we are also grateful to the students who peer-reviewed our Survey and Experiment before distributing it to participants.

#### **References**

- Dhira TA, Rahaman MA, Sarker AR, Mehareen J. (2021). Validity and reliability of the Generalized Anxiety Disorder-7 (GAD-7) among university students of Bangladesh. *PLoS One*. Dec 16;16(12):e0261590. doi: 10.1371/journal.pone.0261590. PMID: 34914811; PMCID: PMC8675645.
- Gnilka, P. B., Ashby, J. S., & Noble, C. M. (2012). Multidimensional Perfectionism and Anxiety: Differences Among Individuals With Perfectionism and Tests of a Coping-Mediation Model. *Journal of Counseling and Development*, 90(4), 427–436. <https://doi.org/10.1002/j.1556-6676.2012.00054.x>
- Hewitt, P. L., & Flett, G. L. (1991). Perfectionism in the self and social contexts: Conceptualization, assessment, and association with psychopathology. *Journal of Personality and Social Psychology*, 60(3), 456–470. <https://doi.org/10.1037/0022-3514.60.3.456>
- Hewitt, P. L., Smith, M. M., Flett, G. L., Ko, A., Kerns, C., Birch, S., & Peracha, H. (2022). Other-Oriented Perfectionism in Children and Adolescents: Development and Validation of the Other-Oriented Perfectionism Subscale-Junior Form (OOPjr). *Journal of Psychoeducational Assessment*, 40(3), 327-345. <https://doi.org/10.1177/07342829211062009>
- Kim, A. J., Sherry, S. B., Mackinnon, S. P., Kehayes, I. L., Smith, M. M., & Stewart, S. H. (2024). Perceived Pressure for Perfection Within Friendships Triggers Conflict Behaviors, Depressive Symptoms, and Problematic Drinking: A Longitudinal Actor–Partner Interdependence Model. *Journal of Psychoeducational Assessment*, 07342829241230710.
- Lépine, J. P. (2002). The epidemiology of anxiety disorders: prevalence and societal costs. *Journal of Clinical Psychiatry*, 63, 4-8.
- Mackinnon, S. P., Sherry, S. B., Pratt, M. W., & Smith, M. M. (2014). Perfectionism, friendship intimacy, and depressive affect in transitioning university students: A longitudinal study using mixed methods. *Canadian Journal of Behavioural Science / Revue canadienne des sciences du comportement*, 46(1), 49–59. <https://doi.org/10.1037/a0033764>
- Qi Y, Lepe A, Almansa J, Ots P, de Kroon MLA; Lifelines Corona Research Initiative; Vrooman JC, Reijneveld SA, Brouwer S. Increases in symptoms of depression and anxiety in adults during the initial phases of the COVID-19 pandemic are limited to those with less resources: Results from the Lifelines Cohort Study. *J Psychiatr Res*. 2022 Oct;154:151-158. doi: 10.1016/j.jpsychires.2022.07.011. Epub 2022 Jul 16. PMID: 35940000; PMCID: PMC9286758.
- Somers JM, Goldner EM, Waraich P, Hsu L. Prevalence and incidence studies of anxiety disorders: a systematic review of the literature. *Can J Psychiatry*. 2006 Feb;51(2):100-13. doi:

10.1177/070674370605100206. PMID: 16989109.

Spitzer, R. L., Kroenke, K., Williams, J. B. W., & Löwe, B. (2006).

Generalized Anxiety Disorder 7 (GAD-7) [Database record].

APA PsycTests.<https://doi.org/10.1037/t02591-000>

Stoeber, Joachim; Schneider, Natalia; Hussain, Rimi; Matthews, Kelly.

(2014). Perfectionism and negative affect after repeated failure: anxiety, depression, and anger. *Journal of Individual Differences*: 10.1027/1614-0001/a000130

Tian, L., & Hou, Z. (2024). Perfectionism, psychological distress, and career indecision among Chinese college students: The mediation effect of coping. *International Perspectives in Psychology: Research, Practice, Consultation*.

<https://doi.org/10.1027/2157-3891/a000092>