The Relationship between Mentor Self-Disclosure and Student Academic Motivation with

the Mediating Factor of Trust

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Abstract

An influential aspect of mentor-student communication commonly used in the classroom is the self-disclosure of the mentor. Self-disclosure is composed of three subtypes: relevance, amount, and negativity. This study examines the model of faculty and peer mentors' self-disclosure on the students' academic motivation, mediated by trust and moderated by relational satisfaction. In this cross-sectional study, students filled in questionnaires measuring their perception of these variables related to their mentors. A Hayes (2013) PROCESS Macro moderated-mediation analysis was performed. The overall model results were not significant for both faculty and peer mentors. The results also indicate a noteworthy link between trust and academic motivation for both faculty and peer mentors. In addition, there was a high correlation between the variables of relational satisfaction and trust, and the relevance of self-disclosure and trust. Future research could further test this model's significance while focusing on different contexts with varying sample demographics. Teacher training programmes could emphasise relational satisfaction and trust to build better rapports with students. This could, in turn, improve academic motivation in students. If self-disclosure is implemented, the relevance of self-disclosure should be prioritised over negativity and the amount of self-disclosure.

Keywords: academic motivation, engagement, trust, peer mentor, faculty mentor, self-disclosure

The Relationship between Instructor Self-Disclosure and Student Academic Motivation

with the Mediating Factor of Trust

A long-standing sentiment of communication is that first impressions matter (Atteberry et al., 2015). This can also be applied more specifically to a student's initial interactions with instructors in a university setting. During their modules' introductory classes, instructors can use these novel opportunities to set the tone for instructor-student communication. It has been found that such interactions impact students' social and emotional well-being (Wang & Dishion, 2012).

In addition, these interactions can influence students within a scholastic scope since, ultimately, the learning process is heavily reliant on effective communication (Han, 2017). An instructor's position requires practical communication skills to deliver the class material and respond to their students' questions and feedback. Thus, it is paramount to understand how instructors effectively communicate with their students and the specific impact on the well-being and academic outcome of the students.

Instructors spend time in the classroom communicating ideas and goals revolving around their modules' content, discussing the specific lesson plan, and potentially self-disclosing aspects of their own lives (Zardeckaite-Matulaitiene & Paluckaite, 2013). In essence, *self-disclosure* can be seen as an integrated part of class time and thus a potential area of research worthy of investigation. Self-disclosure was first defined as 'opening oneself up with an attitude involving trust and love' (Jourard, 1971). This definition has *trust* seen as a central pillar of self-disclosure and a potential leading outcome of self-disclosure from the concept's earlier developments. Trust in this context is defined as "the social capital that allows individuals to bond and network in order to achieve better student performance" (Basch, 2012, p. 13). A criticism of Jourard's original self-disclosure definition here is that it does not factor in the complex interactive nature

of self-disclosure. Wheeless and Grotz (1976) reformed the definition to include "...any message about the self that a person communicates to another." (p. 338).

From the above series of definitions, it is easy to see that the concept of self-disclosure has been developed over time while being multi-factorial. In the scope of this research paper, the definition that will be used sees self-disclosure of an instructor within a classroom as statements in the classroom made by the instructor about themselves that may or may not be related to subject content, but reveal information about the teacher that students are unlikely to learn from other sources (Sorensen, 1989).

Cayanus and Martin (2002) first measured self-disclosure using a unidimensional scale. This scale measures how often teachers self-disclose, specifically the amount of instructor self-disclosure. They later revised the scale in a subsequent study to allow for the further categorisation of self-disclosure by an instructor (Cayanus & Martin, 2008). Self-disclosure was divided here into three distinct dimensions; (a) amount, (b) relevance and (c) negativity. A*mount* refers to how often instructors self-disclose, thereby quantifying instances of self-disclosing. *Relevance* refers to how significant the content of the instance of self-disclosure is to the subject content. *Negativity* refers to the emotional connotation of the instance of self-disclosure. The act of self-disclosure is seen as a dynamic process (Collins & Miller, 1994), as it can change and develop over time. This is because self-disclosure is ultimately a form of communication, thereby inherently not static.

Self-disclosure can therefore be seen as a multifaceted term that can have varying outcomes depending on; the type of self-disclosure, its context, and how long it is present. For example, self-disclosure can be used as a form of reinforcement by showing a more intimate side of the instructor. This could then improve classroom reciprocity by allowing the instructor to

potentially be seen in a more positive and approachable light (Allen and Court, 2009). Self-disclosure is linked with further improving students' participation (Goldstein & Benassi, 1994) and learned motivation (Zardeckaite-Matulaitiene & Paluckaite, 2013). However, self-disclosure has also been shown to have potentially adverse effects. A study by Sorensen (1989) has associated the negative connotation of self-disclosure with students later rating their teachers in a poorer light. Another study warned about the downside of self-disclosure, which could potentially be seen as egocentric of the instructors (Allen & Court, 2009).

Self-disclosure can therefore be seen as a positive or negative tool for instructors. If utilised appropriately, there can potentially be a net positive impact on the learning environment. This thereby makes further investigations into self-disclosure and its resulting outcomes immensely worthwhile.

An important potential outcome of self-disclosure is students' *academic motivation*. Academic motivation is a complex and multifaceted phenomenon that is difficult to observe (Christenson et al., 2012). Engagement has been found to be an observable phenomenon that proceeds academic motivation (Christenson et al., 2012). The definition used in this paper is "a student's desire or interest in engaging with learning and their school experience". (Hulleman et al., 2016).

Academic motivation, often manifested through engagement, is seen as a central component of the learning process (Roeser & Eccles, 1998). The presence of academic motivation has been associated with students performing better in their grades (Cetin, 2015). Students who are more academically motivated are more likely to study and, thereby, more likely to produce higher quality work (Green et al., 2012). It is also possible that such students are likely to have a more positive attitude toward academia and the learning experience (Green et al.,

2012). In comparison, low academic motivation is seen as a significant predictor of student dropout (Vanthournout et al., 2012). Therefore, academic motivation can be observed as a consequential factor in determining a student's success in education (Vanthournout et al., 2012). It is then not unreasonable to theorise that the more academically motivated a student is, the more likely they will succeed academically.

Therefore, it is crucial to understand better the effect of academic motivation and what instructors can do to improve the academic motivation of their students. Williams and Williams (2011) list teachers or instructors as one of the key contributing factors to students' academic motivation. In particular, it was suggested that a good relationship between instructor and student could significantly improve the students' academic motivation. Jones (2009) recommends instructors use what is known as the MUSIC method to aid in student motivation. This method consists of the following: 1) empowerment, (2) usefulness, (3) success, (4) interest, and (5) caring. This strategy revolves around the instructors implementing these communication techniques more into their class, allowing them to improve the instructor-student relationship and motivate students to a greater degree.

Instructors can use both immediacy and potentially self-disclosure to keep the students engaged. *Immediacy* is defined as "nonverbal and verbal behaviours, which reduce psychological and/ or physical distance between teachers and students" (Christophel & Gorham, 1995, p. 292). Immediacy and self-disclosure are very closely related terms (Zardeckaite-Matulaitiene & Paluckaite, 2013). Teachers using immediacy are found to be positively linked to academic motivation (Liu, 2021). It is believed that instructor immediacy can help build trust between the instructor and students (Jaasma & Koper, 1999). This relationship built on trust can potentially have positive effects on academic motivation.

We believe immediacy and self-disclosure are so similar that they might have comparable relationships to student outcomes. Building on the literature that shows links between immediacy and trust, it is also important to explore the relationship between self-disclosure and trust in students' academic motivation. Thus far, the literature has found that the relationship between self-disclosure and trust is moderately positively related (Wheeless & Grotz, 1977). The transparency aspect of self-disclosure is also positively linked to relational satisfaction and trust (Wang, 2020). *Relational satisfaction* can be defined as "the building and maintaining of member relationships during communications processes and practices throughout the lifespan of the group" (Anderson et al., 2001, p. 220).

The link between self-disclosure, relational satisfaction, and trust might be due to the Self-Expansion Model (Aron & Aron, 1986). The Self-Expansion Model suggests that people want to expand themselves by including the good aspects of others in themselves. This expansion can potentially be conveyed through self-disclosure i.e. by sharing information about themselves. This shared information occurs in the context of a trustful relationship, which can potentially open up feelings of closeness, engagement, and motivation (Sprecher et al., 2015).

Self-disclosure that is primarily relevant to the academic learning goals of the class has been linked to more classroom participation (Cayanus et al., 2009). Self-disclosure in a positive context has been associated with greater instances of students appreciating their instructor within the classroom setting (Cayanus, 2002). Some aspects of the relationship between self-disclosure and student outcomes have been examined. Nevertheless, we do not know the distinct impacts of self-disclosure on academic motivation specifically. We also do not know what links self-disclosure and academic motivation nor the role trust plays in this process.

A way to further explore the relationship between the above variables is to examine the influence of peer and faculty mentors on student outcomes. Although the definition of peer or faculty mentor/ instructor varies across the literature, depending on the emphasis of the study and theoretical models behind it (Rieske & Benjamin, 2015), the definitions used in this paper are adapted from Rieske and Benjamin's (2015) paper. A *peer instructor/mentor* is defined as a student who is commonly further into their studies and provides both academic and emotional support to other students less experienced in the field. A *faculty instructor/mentor* is defined as a graduate, working professional with more experience in the field who also offers emotional and academic support to students. The key difference is that one mentor is still a student, and the other is a more experienced professional academic.

Research has been done on mentor relationships with students and their outcomes generally (Law et al., 2020). These widely varying outcomes include positive student behaviours, positive attitudes, and better retention rates (Law et al., 2020). The positive effects of peer mentors on student outcomes have been studied specifically (Rieske & Benjamin, 2015). Faculty-mentor outcomes have also been studied but to a lesser magnitude (Lechuga, 2011). However, the research on the difference between a peer mentor and a faculty mentor affecting students' outcomes is limited. Thus far, the literature has mainly agreed that a peer mentor is likely to have the updated student insight that a faculty mentor may not have (Colvin & Ashman, 2010). The peer mentor may be perceived as more approachable and relatable than a faculty mentor. This might be because both peer mentor and mentee are students and in similar life circumstances, e.g. share comparable ages and study similar material. Peer mentors are thus likely to be perceived as more of their equals, and the emphasis of the relationship can be more friendship-based (Colvin & Ashman, 2010).

However, faculty mentors have more experience in the field and potentially more experience in mentoring. This expertise may benefit students as faculty mentors are master learners of their field, with important insight to learn from that a student mentor does not yet possess (Lechuga, 2011). The exact differences in the outcome of students for faculty versus peer mentors still require more exploring. A better understanding of these differences can benefit academia as it may be easier to make an informed decision on who is a better fit for different mentoring programmes.

This then leads to the primary goal of this research paper. We plan to fill in the gaps within the research by investigating the following moderation mediation model (Figure 1). We hypothesise that self-disclosure is linked to academic motivation with the mediating factor of trust. Mentors' self-disclosure may lead to a sense of closeness and trust, which in turn, may improve student outcomes. Thus our second prediction is that relational satisfaction has a moderating effect between self-disclosure and trust. We also want to explore correlational relationships between variables, in particular for peer mentors to allude to potential relationships and future research ideas. We further want to examine the differences between faculty and peer mentors' self-disclosure and trust by comparing their significance within the model. Testing this model can help further understand how mentors can effectively use self-disclosure to academically motivate their students, and we can further understand what role trust and relational satisfaction play, as well as if faculty or peer mentors affect the significance of the model.

Figure 1.
Moderation Mediation model for Mentors
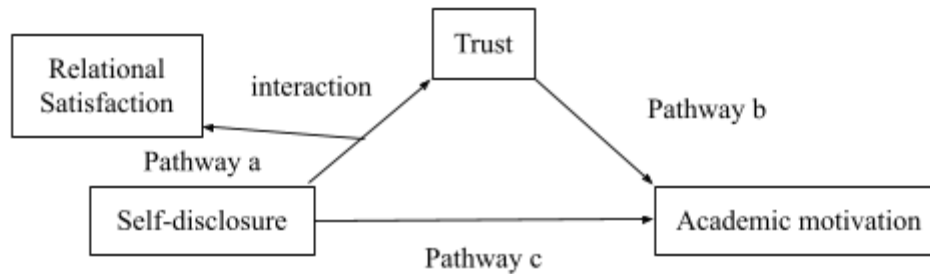
Note: This model depicts the predicted relationship between self disclosure and academic motivation with trust as a mediating variable and relational satisfaction as a moderator.

Method

Participants

A total of 188 participants took part in this study. 92 participants were excluded from our study due to not fully completing the survey, spending less than 100 seconds on the survey, and being preview participants. This left a sample size of 96 1st-year psychology students, each taking the Academic Skills module in the Bachelor of Psychology programme at the University of Groningen (74 female; 20 male; 2 other). The participants varied in age from 18 to 34 years. The participants' nationalities were 42% German, 24 % Dutch, and 31 % other nationalities. Participants were recruited through advertising by faculty staff and recruitment by researchers for this study during class breaks; no compensation was given for participation.

Study Design and Procedure

In this study, a correlational research design was used. The nature of the study was observational in that levels of self-disclosure of peer-mentors/faculty-mentors were not directly modified or influenced by the study design. The variables in the mediation moderator were assessed using a set of questionnaires addressing the participants' perceptions of the measured variables. All participants that agreed to partake underwent the same order and set of

questionnaires. This study was part of a larger research project utilising the work of multiple bachelor thesis groups. Ethical approval was obtained from the faculty ethics committee.

The participants were asked to fill out anonymous online questionnaires. Participants were allowed to take as much time as needed and drop out of the study at any given time. After confirming the participants' status, they were given an introduction to the study stating its content and procedure. After informed consent was given, participants were shown a set of questionnaires each measuring a studied variable. For this paper, the focused, measured variables are peer mentor/ faculty mentor self-disclosure, peer/ faculty mentor trust, relational satisfaction and academic motivation. After completion of the survey, participants were thanked for their participation.

Materials and instruments

Self-disclosure

The Teacher Self-Disclosure Scale (Cayanus & Martin, 2008) was used to measure the amount, relevance and negativity of self-disclosure from both faculty and peer mentors. The questionnaire itself consists of 14 items (e.g., "My peer/faculty mentor often shares their dislikes or likes."), measured on a 7-point Likert scale, ranging from completely disagree (1) to completely agree (7). All three dimensions show high internal consistency: amount ($\alpha = .80$), negativity ($\alpha = .84$), relevance ($\alpha = .88$). Moreover, each item has been shown to have content validity (Cayanus & Martin, 2008). In our sample, Cronbach's alpha was .74.

Relational satisfaction

The Relational Satisfaction Scale (RSS; Anderson & Martin, 2001) is a 12-item instrument (e.g., "We can say anything in this group without worrying.") and was used to measure students' satisfaction with intra-group relations. The 5-point Likert scale ranged from

strongly disagree (1) to strongly agree (5). While there is some support for concurrent validity, more concrete evidence of the scale's validity and reliability still needs to be investigated (Anderson & Martin, 2001). Cronbach's alpha in our study was .41.

Trust

The Student Trust in Faculty Scale (STF; Forsyth et al., 2012) is a 13-item instrument (e.g., "Peer/Faculty mentors care for students.") that was used to measure students' level of trust in their peer and faculty mentors. The scale is scored along a 4-point Likert scale, ranging from strongly disagree (1) to strongly agree (4). The internal consistency of the scale has been shown to be very high ($\alpha = .90$). Moreover, there is support for construct, concurrent as well as predictive validity (Forsyth et al., 2012). In our sample, Cronbach's alpha was .88.

Academic motivation manifested through engagement

The Higher Education Student Engagement Scale (HESES) (Zhoc et al., 2019) was used to measure academic motivation. The HESES is a 28-item questionnaire (e.g. I usually come to class having completed readings or assignments) based on the five-factor model of student engagement (Fredricks et al., 2012). The domains of academic, cognitive, social, and affect engagement were included in the study. Online engagement was removed as it was not relevant. Academic motivation was measured on a 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5). The questionnaire was supported to have criterion validity and inter-consistency (Zhol et al., 2019). The Cronbach's alpha in our study was .79.

Data Analysis

Once the data was obtained, Trust item number 10 was reversely coded which was then fixed in the analysis to measure trust positively. The subscale of negative self-disclosure was reverse coded. This is due to negative self-disclosure being linked to negative student outcomes.

Thus reverse coding resolves this association with potential negative outcomes. Descriptive analyses were performed to establish an overview of the participants' demographic distribution as well as Pearson's correlations, means, and standard deviations outcome of variables were calculated. The moderated mediation model was then tested using the Hayes (2013) PROCESS macro for SPSS (model 7). A bootstrapping approach was utilised in this analysis. This model tests the indirect effect of a moderating variable (relational satisfaction) on the relationship between the independent variable (self-disclosure) and the outcome variable (academic motivation) via the potential mediator of trust.

Results

Descriptive statistics

Pearson's correlations, means, and the standard deviations between all applicable variables for the peer mentor are depicted below in Table 1.

Table 1.

Pearson's Correlations, Means and standard deviations of the Variables

	1.	2.	3.	4.	5.	6.	7.	Mean	SD
1.Self-Disclosure Total	-							5.08	.64
2.Amount of Self-Disclosure	.63**	-						3.95	1.22
3. Relevance of Self-Disclosure	.69**	.28**	-					5.04	1.06
4. Reverse Code Negativity of Self-Disclosure	.43**	-.15	-.10	-				6.01	1.03
5. Trust	.26**	-.02	.33**	.14	-			3.16	.38
6. Relational Satisfaction	.01	-.11	.21*	-.09	.41**	-		3.44	.37
7. Academic Motivation	.22*	.01	.15	.22*	.25*	.19	-	3.61	.52

Notes. **. Correlation is significant at the 0.01 level (2-tailed).*.
Correlation is significant at the 0.05 level (2-tailed)

Moderation Mediation Analysis

Peer Mentor Model

Upon applying Hayes PROCESS model 7, the effects of self-disclosure regressed on trust were examined. Overall, there was a significant submodel ($F(3,92)=8.319$, $p=.002$), with 24.2% of the variance in trust being explained by the predictor variables. However, the individual variables of self-disclosure and relational satisfaction were not significant, with self-disclosure having $B = -.285$, $SE = .651$, 95% CI [-1.577,1], $p = .662$, and relational satisfaction having $B = -.205$, $SE = .968$, 95% CI [-2.127,1.717], $p =.838$. The interaction effect of relational satisfaction moderating trust was also not significant with $B = .124$, $SE = .189$, 95% CI [-.251, .499], $p =.514$. This would suggest the individual variables and their interactions alone were not significant but together make up a significant submodel to predict trust.

The submodel of self-disclosure and trust regressed, with an outcome variable of academic motivation, had a mostly not significant model (($F(3,93)=3.823$, $p=.025$), with 8.85% of the variance explained by the predictor variables. The self-disclosure variable was not a significant individual predictor of academic motivation, with self-disclosure having $B =.134$, $SE = .091$, 95% CI [-.048,.315], $p=.146$. However, trust did have a significant relationship with academic motivation having $B =.290$, $SE = .154$, 95% CI [-.016,.595], $p=-.045$. This means the relationship of pathway b was significant in the model (Figure 3).

The index of moderated mediation, which depicts the slope of the line representing the association between relational satisfaction, and the indirect effect, was not significant ($B =.0359$, bootstrap $SE =.0571$, 95% CI [-.0598,.1720]). The conditional indirect effect of self-disclosure on academic motivation mediated through trust at a low level of relational satisfaction (-1SD; $B= .0275$, bootstrap $SE=.031$, CI [-.025, .1010]), at a moderate level (Mean; $B= .041$, bootstrap

SE=.027, CI [-.002, .105]), and at a high level (+1SD; *B*= 041, bootstrap *SE*=.054, CI

[-.0021,.1441]) was not significant. Overall, the conditional indirect effects were not significant

for the moderator variable. This suggests that relational satisfaction does not significantly play a

moderator role in the overall model. See Figure 2.

Figure 2.

Depicting the Relationship between Self Disclosure and Trust moderated by
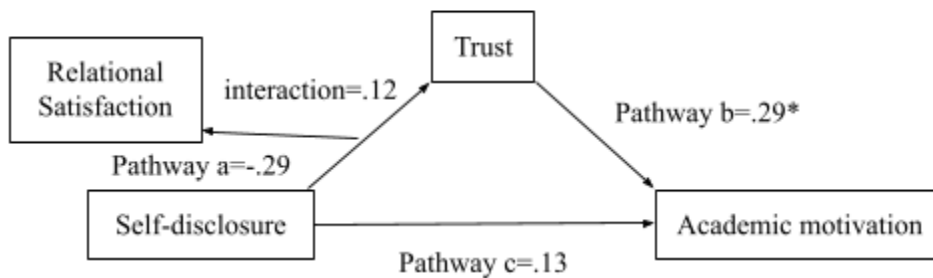
Relational Satisfaction.
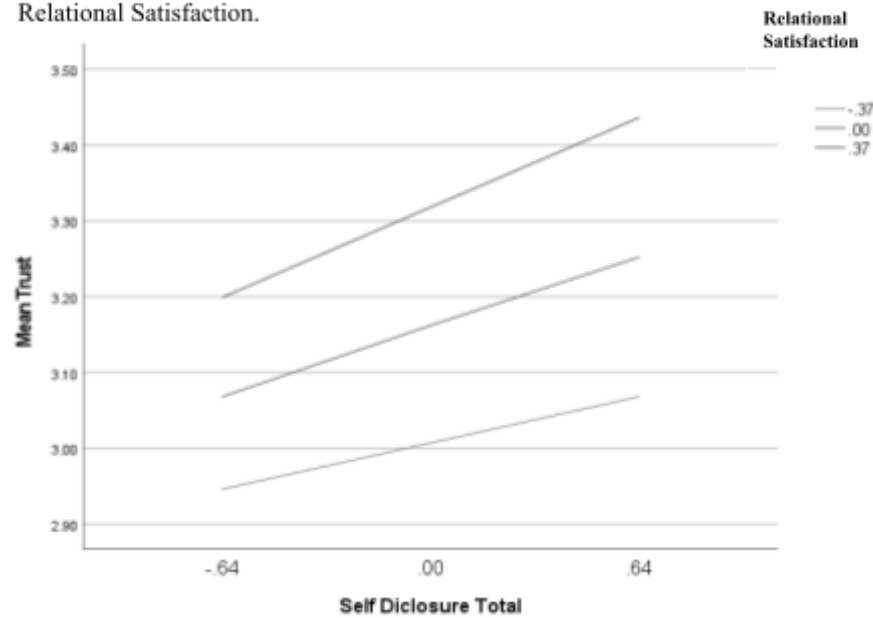
Note: The variables are standardised and the results indicate no significant interaction effect.

Faculty Mentor Model

For faculty mentors, the overall model was statistically not significant (*F*(3,92)=1.953,

p=.127) (See Figure 3). Pathway a, which depicts the relationship between self-disclosure and

trust, was statistically not significant with *B* =-.412, *SE* = .483, 95% CI [-1.370,.546], *p*=.395.

Pathway b depicting the relationship between trust and academic motivation was significant with

B =.285, *SE* =.134, 95% CI [.018,.551], *p*=.037. Pathway c depicts the relationship between

self-disclosure and academic motivation, which had no significant results (*B* =.062, SE =.063,

95% CI [-.063,.188], *p*=.328). The interaction effect between self-disclosure and relational

satisfaction had statistically no significant results with *B* =.138, *SE* =.137, 95% CI [-.134,.411],

p=.316. The index of moderated mediation was not significant (*B* =.039, *SE* =.048, 95% CI

[-.043 ,.151]). The moderator effect was not significant. Overall, the findings for peer mentors

and faculty mentors are quite similar. See Figures 3 and 4.

Figure 3.
Moderation Mediation model for Peer Mentors

Note: (**p<.05; **p,.001*) This model depicts the predicted relationship between peer self disclosure and academic motivation with peer trust as a mediating variable and relational satisfaction as a moderator showing the beta coefficient values.

Figure 4.
Moderation Mediation model for Faculty Mentors
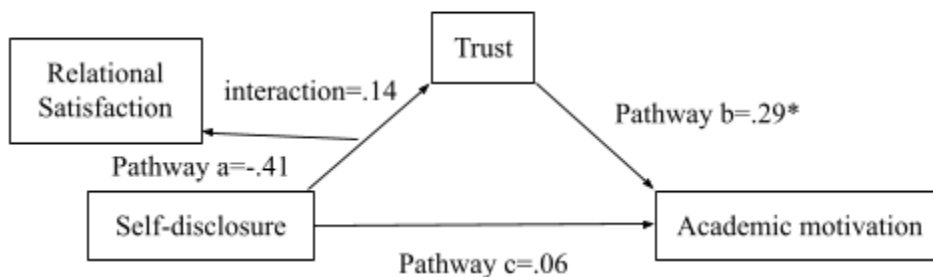
Note: (**p<.05; **p,.001*) This model depicts the predicted relationship between peer self disclosure and academic motivation with peer trust as a mediating variable and relational satisfaction as a moderator showing the beta coefficient values.

Discussion

It was hypothesised that the act of self-disclosure by a mentor has a positive correlation with trust and that this relationship is also positively associated with an increased level of academic motivation among their students. It was then predicted that this link between trust and academic motivation is moderated by general relational satisfaction between a mentor and their students. Self-disclosure and trust were examined for mentors, distinguishing between faculty and peer mentors. The study of this model was facilitated by collecting the results of self-surveys completed by a sample of psychology students. A mediation moderation analysis was then performed.

The overall model (Figure 1) was found to not be significant, in contrast to the hypotheses. This seems to indicate that the moderation mediation model does not function as intended in its present state of development. There is no strong evidence to suggest that the relationship between self-disclosure and academic motivation is mediated by trust and moderated by relational satisfaction in this study.

However, it was found that trust was significantly related to academic motivation. This is observed as pathway b within the model. These results are consistent for both peer mentor and faculty mentor models (See Figures 3 and 4). From this, such a dynamic could indicate that there is little distinction in how faculty mentors are viewed compared to peer mentors by their students regarding the significance of the relationship between variables in the model. Further examination of the peer mentor model was completed, focusing on the correlation findings. Significant positive correlations were found between three particular dynamics; total self-disclosure with trust, relational satisfaction with trust, and relevance self-disclosure with trust.

The results between self-disclosure and academic motivation, not being significant, are inconsistent with previous literature on the topic. For example, the Self-Expansion Model (Aron & Aron, 1986) suggests a relationship between self-disclosure and academic motivation. Self-disclosure can be used as a form of expanding oneself to build trust (Sprecher et al., 2015). They hypothesised a potential causal relationship between self-disclosure and academic motivation (Sprecher et al., 2015). Although the results of pathway a in the model are inconsistent with the Self-Expansion Model, it is noteworthy that the Self-Expansion Model has been mostly applied to interpersonal romantic or friendship relationships rather than that between a mentor and student. It is certainly possible that a mentor relationship would not yield the same results as a romantic or close friendship-based relationship due to it being more academic and professionally based.

Within Pathway b, the link between trust and academic motivation was significant. This is consistent with the current literature and our expectations. The Self-Expansion Model predicts a bettering of oneself when building trust, potentially improving motivation (Sprecher et al., 2015) which is comparable to pathway b in our model. Pathway b is arguably more performance-based than pathway a. This is because pathway b is about the outcome of motivation which is linked with performing better in academia (Cetin, 2015). Motivation being performance-based might be more applicable to the academic context with relationships between academic mentors and their students. This might be why pathway b is significant. Another possible explanation for this link is that trust likely fosters a proactive classroom learning environment (Tschannen-Moran & Gareis, 2015). This, in turn, likely promotes the students' motivation (Williams & Williams, 2011). This brings up the possibility of another variable at play, such as a good classroom environment.

Generally, the positive link between relational satisfaction and trust is in line with our expectations and quite consistent with previous literature on the topic (Ennen et al., 2015). Platz (2021) even emphasises that relational satisfaction and trust are linguistically and psychologically intertwined terms, arguing that one can not exist without the other. Trust and relational satisfaction in the classroom are linked to engagement and motivation (Ennen et al., 2015). The significant correlation between relational satisfaction and trust also supports the possibility of another underlying variable such as a good classroom environment. Both relational satisfaction and trust likely contribute to a better classroom environment which may then lead to higher academic motivation.

The moderator of relational satisfaction was not significant. This is not in line with our expectations. One explanation for this might be because the RSS questionnaire (Anderson & Martin, 2001), in general, does not differentiate between mentor relationships and other peer relationships in the class. This makes it quite difficult to infer if the mentor or peers in the class is contributing to the relational satisfaction. One way to improve on this is to adjust the questionnaire to make it specifically about the mentor in the classroom.

Self-disclosure was not significantly linked to academic motivation (pathway c), which is also inconsistent with previous findings such as Zardeckaite-Matulaitiene and Paluckaite (2013), who link self-disclosure and learned motivation as positively related. One potential explanation of these results is that only particular aspects of self-disclosure may contribute to trust and academic motivation while others do not. In this study, total self-disclosure was used in the model. However, the specific examination of the different subtypes of self-disclosure instead of self-disclosure as a whole may yield significant results within the model.

The results indicate that there is no significant difference in the model if mentors were faculty or peer-based. The comparison between the peer and faculty mentors was primarily unexplored, and the literature is still underdeveloped. However, peer mentors are more likely to be perceived as friends and thus potentially have closer relationships (Colvin & Ashman, 2010). This might positively affect trust and relational satisfaction and make self-disclosure more likely to occur. In comparison, faculty mentors are more knowledgeable of their field (Lechuga, 2011) and thus easier to trust, which can positively impact relational satisfaction and make mutual self-disclosure more likely. Perhaps both of these points balance each other out, accounting for similar results for both the faculty and peer mentor models.

Implications

The knowledge gained from this study can inform teachers on effective communication techniques that can also be implemented for more applicable teacher training programmes. Generally speaking, this study shows little evidence to support the benefits of applying this model in the classroom.

However, it is paramount that teachers know the positive value trust may play on academic motivation for their students. Relational satisfaction, which according to our study is highly correlated with trust, likely fosters a good classroom learning environment (Barr, 2016). This, in turn, potentially keeps the students motivated. It is recommended that mentors emphasise a satisfying relationship built on trust with their students to potentially improve student academic motivation.

Although self-disclosure does not contribute to negative consequences in the model, it does not seem to show any meaningful positive impact on trust or academic motivation. However, the relevance of self-disclosure is linked to class participation (Cayanus et al., 2009)

which is a comparable concept to academic motivation (Kerssen-Griep et al., 2003). In the literature, the amount of self-disclosure is not consistently related to positive student outcomes (Miller et al., 2014). Negative self-disclosure might even have negative outcomes (Sorensen, 1989). In future research, it might be beneficial to investigate the relevance subtype of self-disclosure instead of total self-disclosure in the model to differentiate it from the other two forms of self-disclosure, as it might yield significant results within the model.

This may be due to the self-disclosure being on task and contributing to the content of the lessons. Relevant self-disclosure might be where relational satisfaction and trust can potentially be built but the self-disclosure still contributes to the students' career, personal and academic goals (Keller, 1983). Excessive self-disclosure that is irrelevant to the lesson plan is not recommended and may take from other classroom resources and student time. It is certainly possible that self-disclosure without relevance may be perceived as inappropriate for a classroom (Frymier & Shulman, 1995). This coincides with other studies that linked relevance to motivations and warned against irrelevant material in the classroom setting (Rasmussen & Mishna, 2008).

Self-disclosure and trust in the peer and faculty mentors seem to relate to academic motivation similarly. The relationship between students and their mentor is important for both types of mentors, though this might be for different reasons. For example, assuming an inexperienced peer mentor can host a large psychology lecture without experience would be unreasonable. Thus, a faculty mentor would be preferred. Similarly, it might make more sense for a peer mentor to welcome incoming students into the University as a tour guide, offering insights into the student perspective. Prioritising other advantages to a higher one over the other outside of this model should be considered as there are many nuanced reasons to prefer a faculty

or peer mentor that is outside the scope of this paper. Future research might explore more specific characteristics of the two types of mentors to understand better how they can motivate students.

Future research can use this model and apply it to other contexts. For example, romantic relationships are likely more applicable to the Self-Expansion Model (Aron & Aron, 1986) and thus potentially more applicable to this model too. It might be beneficial to see how self-disclosure and its varying subtypes contribute to trust and motivation within a relationship context outside the scope of academia. This model might also be relevant to the workplace context, e.g a work mentor and employee in a work environment. Examining the model within different contexts may yield significant results.

Limitations

The sample size in this study's current form is less than 100, which yields a smaller power and increases the likelihood of type two errors. The sample is composed of people taking the module Academic Skills that are mostly European, young, educated, and disproportionately female over male participants'. This sample group is arguably limited and not fully representative of the greater global population. It would be recommended that future research focus on investigating this study again but with a more representative sample of that demographic and applying the question to different contexts.

This study is primarily correlational; thus, it is impossible to make definitive inferences from the data on the causality of the relationship between variables beyond implications. Designing a study that can establish causality in communication and relationship techniques is highly complicated, as many of these variables are so multi-faceted and co-existing that a causational relationship is difficult to determine. Inferences can be made suggesting casualty if

other potential hidden variables are accounted for more in complex models. For example, factoring in the greater context of the classroom environment and peer relationships into the model. However, such complex models are difficult to implement and go beyond the scope of this paper. Intentionality and awareness of teacher communication can also be explored more for further evidence of casualty (Cayanus & Martin, 2008). For example, some teachers may intentionally self-disclose specific information that has consistently shown to work in the teacher's previous classes to motivate students. Future research can implement a teacher's perspective into the model to infer causality better. For example, quasi-experiments observing teachers in the classroom combined with surveying teachers on their intentions behind self-disclosure, as well as asking them what they perceived to be their students' behavioural outcomes when they self-disclose.

It might also be beneficial to measure these variables over time to see a pattern that might indicate casualty. Dynamic processes such as self-disclosure should be measured over time to see the effects as it develops. This study captures a snapshot of the variables in time which are subject to change. In future studies, ecological momentary assessment methods (Shiffman et al., 2008) can be used, which entails the sample filling out questionnaires regularly examining the perception of the variables. This way one can measure these variables as they occur in a longitudinal study. This can demonstrate patterns in relationships between variables over time.

Another potential improvement is to use alternative questionnaires to measure the variables within the study. For example, instead of using an engagement questionnaire to measure academic motivation, an alternative questionnaire might be worth pursuing that is specific to academic motivation. A recommended questionnaire with high reliability called the short academic motivation scale could be used (Kotera et al., 2021). This questionnaire divides

motivation into three subtypes of motivation: intrinsic motivation, extrinsic motivation and amotivation. This questionnaire allows for more nuance in measuring academic motivation by factoring in its subtypes.

Conclusion

Overall, self-disclosure does not seem to have as strong an impact on academic motivation as predicted. Only trust seems to be significantly related to academic motivation. Improving the student-mentor relational satisfaction while emphasising trust to improve academic motivation is strongly suggested and supported by our model.

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