Navigating the Workplace:

Problems, Perceived Support, and Need-Satisfaction of First-Generation Students During Their Internship

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Abstract

Students who are the first in their families to attend university are considered first-generation students (FGS). Previous research has shown that the experiences of FGS at university tend to differ from those of continuous-generation students (CGS), whose parents attempted an academic career and went to university. Not much research has investigated whether differences persist when students transition to their first professional workplace. This study presents longitudinal data of 87 psychology master's students during their first professional internship, marking the transition to the workplace. Psychological needs satisfaction and problems experienced at the internship were measured in 19-24 weekly diary measures. A starting survey identified students' generational status and their perceived sources of support during the internship, focusing on perceived internship supervisor support and support from friends. It was expected that FGS would experience more problems at the internship and therefore experience less autonomy, competence, and relatedness than CGS. Statistical analyses of aggregated data revealed that FGS did not experience more problems throughout the internship but felt less competent towards the internship's end compared to CGS, possibly influenced by societal expectations and stereotype threat. Perceived sources of support were expected to differ across generational status and to moderate the negative effect of FGS students experiencing more problems during the internship. This was partly confirmed by showing that FGS perceived their friends as a stronger source of support than CGS. However, no interaction was found between generational status and perceived sources of support for the problems experienced. Whether problems were experienced at the internship was more influential for their needs satisfaction than generational status. More research is needed aiming to further define factors influencing workplace transitions of FGS to promote equity in professional successes regardless of parental backgrounds.

Keywords: First-generation students, needs satisfaction, internship experiences, sources of support, problems

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First-Generation Students During Their Internship

Demographic and cultural diversity at universities is increasing rapidly. Applications from underrepresented minority candidates as well as applications from first-generation students (FGS) substantially increase throughout the years (Magouirk et al., 2022). This trend is observed in many countries, including the USA, Israel, or South Africa (Ayalon & Mcdossi, 2016; Heymann & Carolissen, 2011; Pascarella et al., 2004). FGS are students, whose parents have not achieved a higher education credential and have no experience with attending university or college. In addition, these families often relate to lower occupational status or lower income (Spiegler & Bednarek, 2013). Despite that, parents within these families may still be strongly oriented toward education. However, they are often perceived to have different expectations concerning academic performance or degree attainment (Spiegler & Bednarek, 2013).

FGS are likely to encounter distinct university experiences compared to continuous-generation students (CGS). It is often reported that FGS experience more challenges within the transitioning period to university and that FGS tend to deal differently with setbacks (Yeager et al., 2016). Challenges such as personal worries about belonging, and capabilities are more prominent, and these worries undermine motivation and achievement, forming a vicious cycle leading to more academic struggles in FGS (Yeager et al., 2016). Loneliness and a personal mismatch with the prevailing professional environment at universities are reported more often by FGS compared to CGS (Phillips et al., 2020, Yeager et al., 2016). The cultural norms of universities typically align with values such as independence, autonomy, or self-reliance (Phillips et al., 2020). FGS often face a cultural mismatch between these norms and their familial working-class backgrounds, which might emphasize values like interdependence and reliance on others. This mismatch in values has shown to persist throughout college and is expected to continue within professional environments, as these often share the same middle-

class values (Phillips et al., 2020). Moreover, research shows that FGS generally are more often confronted with negative stereotypes, which associate FGS with potential economic disadvantages or a lack of professional networking opportunities (Terry & Fobia, 2019, Yeager et al., 2016). In some cases, these stereotypes may reflect reality, as FGS often encounter more financial difficulties or a lack of academic preparation (Spiegler & Bednarek, 2013, Wildhagen, 2021). Altogether, these challenges contribute to FGS being notably more likely to drop out of university compared to CGS (Lohfink & Paulsen, 2005).

If students persist to graduate from university, most enter the working life, again encountering new challenges that significantly contribute to the ongoing formation of their professional identity. Within most degree programs, gaining practical experiences through internships is emphasized and involved as an integral component. For university students, these internships are often the first practical experience within students' respective professions and are essential for their professional identity formation (Jensen & Jetten, 2015). Professional identity is defined as the interaction between students' learning experiences and professional skill application, both contributing to the identification as a member of a professional group (Reid et al., 2008). The development of a professional identity is essential and holds importance for an individual's self-perception, involving the formation and connection to new roles, duties, values, and responsibilities (Goltz & Smith, 2014).

While there is much research on differences between first- and continuous-generation students in experiencing the transitioning to university (Spiegler & Bednarek, 2013, Terry & Fobia, 2019, Yeager et al., 2016), little research is done on whether FGS experience the transitioning from university to the workplace differently than CGS. Addressing this gap in literature is relevant as these experiences continue to play a crucial role in shaping the ongoing professional identity formation (Jensen & Jetten, 2015). Within this weekly diary study, students evaluate their internship experiences, and it is examined whether FGS, compared to CGS, perceive more problems and encounter greater difficulties in navigating

them during their first workplace experiences. Quantitative analyses of intensive longitudinal research will enable the systematic comparison of the two groups' experiences.

Transitioning to the workplace requires adapting to a new professional context, distinct from the work environments FGS are familiar with based on their parents' experiences (Olson, 2016). Research on workplace inclusion for first-generation professionals indicates that they are more likely to perceive barriers such as a lack of participation in development programs, and limited opportunities for unpaid internships or travel experiences before entering the workplace due to a lower socioeconomic status (Terry & Fobia, 2019). Such experiences may be crucial for professional growth and networking. The lack thereof may result in barriers to workplace inclusion and career advancement (Terry & Fobia, 2019. Based on these findings, it is hypothesized that FGS are faced with more problems during their first professional internship, compared to their continuous generation peers (H1).

Additionally, previous research shows that FGS generally feel less connected and belonging to their university (Jensen & Jetten, 2015, Payne et al., 2023, Stebleton et al., 2014). Consequently, this negatively affects successful college completion and contributes to elevated levels of depression and stress (Stebleton et al., 2014). The need for belonging, alongside feeling autonomous and competent, is a core component of human motivation, self-determination, and psychological well-being (Ryan and Deci, 2017). Feeling competent within one's environment and interactions, mastering new skills, and maintaining a sense of control over actions that reflect personal values and interests are integral components of experiencing autonomy and competence. These factors prove to be essential for experiencing well-being within an environment (Ryan & Deci, 2017). Because FGS tend to feel less belonging at university due to a potential mismatch in values and since this mismatch is anticipated to continue within professional environments (Phillips et al., 2020), FGS likely feel less autonomous and less capable but more reliant on the support of others during their internships. Within this context, it is expected that the internship provides a less need-

satisfying environment for FGS, meaning that they perceive lower levels of competence, autonomy, and relatedness towards the end of their internship compared to CGS (H2).

Psychological needs satisfaction is highly relevant for employees' functioning, self-determination, and well-being, and links positively to job resources (Van Den Broeck et al., 2010). Studies show that job satisfaction and needs satisfaction correlate strongly (Busque-Carrier et al., 2021; Schreurs et al., 2014). In contrast, experiencing problems during the internship, such as predicted in FGS, is expected to impact an individual's sense of autonomy, competence, and relatedness more negatively (H3).

Perceiving support from their professional surrounding could potentially mitigate these effects. By being able to overcome challenges during the internship, autonomy, competence, and relatedness could increase (Kaabomeir et al., 2022). However, research among students in the context of college experiences shows that there are differences between FGS and CGS when it comes to navigating through setbacks and asking for help (Jensen & Jetten 2015; Payne et al., 2023). Payne et al. (2023) found that, for FGS, turning to professors in case of problems was the final resort, after attempting to solve issues independently or seeking support from peers. The authors argue that stereotype threat, self-stigma, and a strong need for self-reliance are often perceived as barriers to engaging in help-seeking behavior. Generally, students with parents possessing a higher educational background tend to have more contact with educators (Jensen & Jetten 2015). The reluctance to ask professors for help may also stem from a perceived power dynamic between students and professors which is stronger for students who did not grow up in an academic environment, compared to those whose parents are academics (Payne et al., 2023). Little research is done on whether the reluctance to ask professionals for help holds true within a professional context. In the current research, it is hypothesized that the barriers to help-seeking continue to exist within the internship setting. Therefore, it is expected that FGS are less likely to see their supervisors as a source of support compared to their continuous-generation peers (H4). In addition, since FGS attempted to seek

support from peers more often (Payne et al., 2023), it is expected that FGS perceive their friends as a greater source of support than CGS (H5).

The importance of perceived supervisor support is highlighted since supervisors play an important role in satisfying employees' needs and providing motivation (Kaabomeir et al., 2022). Perceived support from supervisors has a positive impact on satisfaction of autonomy, competence, and relatedness (Kaabomeir et al., 2022). Within this present research, it is hypothesized that not perceiving both internship supervisors or friends as a source of support is related to students experiencing more problems, consequently perceiving less autonomy, competence, and relatedness at the end of their internship (H6). Thus, support from peers or supervisors is expected to serve as a buffer against experiencing problems during the transition from university to the workplace (Aarntzen et al., 2023, Cohen & Wills, 1985). As depicted in H4 and H5, it is proposed that this support is even more important for FGS than for CGS since FGS often lack familial guidance and professional networks in navigating professional environments. Thus, FGS might rely more on peer and supervisor support, helping to overcome uncertainty in adapting to their new role by providing practical and emotional assistance (Gardner & Holley, 2011).

The Current Research

To uncover the transitioning process of FGS from college to their workplace and to find out about potential differences regarding experiences and psychological well-being, longitudinal research is conducted with the following aims. First, it is investigated if FGS experience more problems during their internship (H1) and whether they perceive lower autonomy, relatedness, and competence at the end of the internship (H2) compared to CGS. Thirdly, it is examined whether experiencing more problems during the internship relates to lower perceived autonomy, competence, and relatedness towards the end of the internship (H3). Then, it is investigated whether FGS are less likely to perceive their supervisors as a source of support in comparison to CGS (H4). In addition, it is explored whether FGS

experience their friends as a greater source of support (H5). Lastly, this research investigates whether the influence of the generational status of the student on problems experienced during the internship will be moderated by perceived support from supervisors or friends, with the association being stronger when perceived support is lower (H6). The relationship between the study variables and their direction of effects is outlined in Figure 1. Demonstrating this by testing the hypotheses described above is relevant for determining reasons behind potential differences in mental well-being and job success between FGS and CGS (Stebleton et al., 2014; Yeager et al., 2016). The goal is to examine if there are perceived inequalities in opportunities and variations in making use of resources that are based on different parental backgrounds (Jensen & Jetten, 2015).

Figure 1

Model outlining the relationships between the study variables
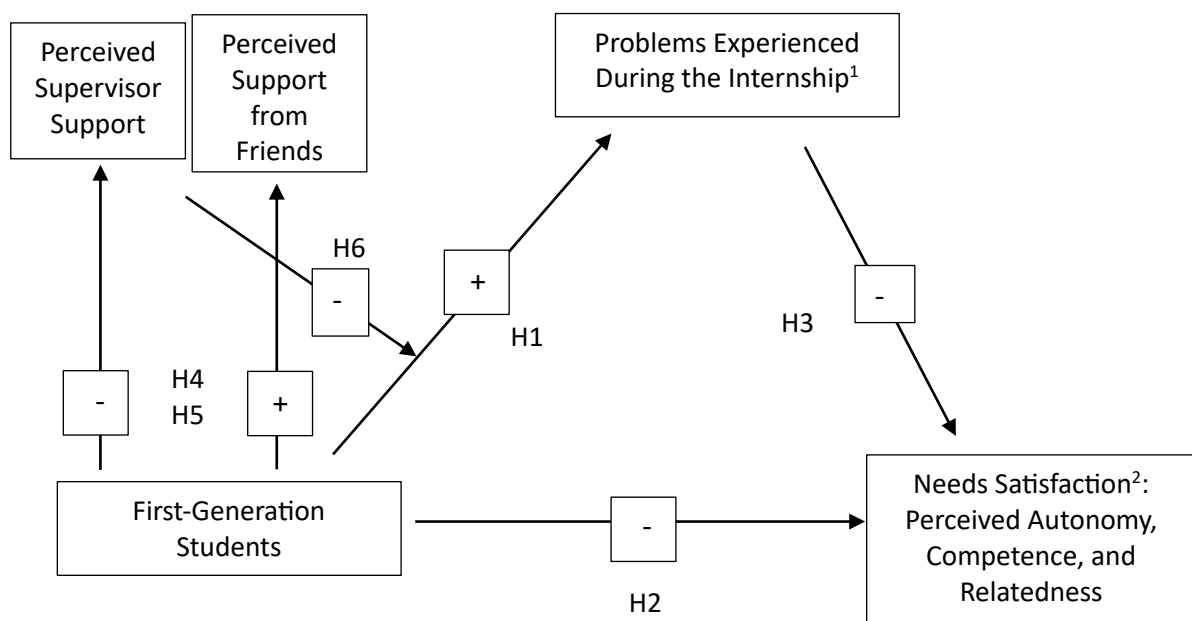
Note. Information on the generational status of students, and perceived support from friends and supervisors was derived from the starting questionnaire. Problems experienced and needs satisfaction were measured across the entire internship. The expected directions of effects are reflected by '+/ − ', with '+' indicating that the expected effect is positive and a '-' indicating that the expected effect is negative.

[1] Values reflect the average across the whole internship.

[2] Values reflect the average across the last 4 measurement waves. For each need, a separate model was established.

Methods

Participants and Procedure

In order to answer the research questions, data from 87 master students during their clinical internship in psychology is used (Kunnen et al., 2021). The psychology students were enrolled at a general university in the Netherlands. They conducted a clinical internship, marking the final part of the master's program, serving as their first practical experience as psychologists. Data from 87 participants was collected. The sample consists of 75 females (86.2%) and 11 males (12.6%). Of the participants, 46 (52.9%) were between 19-23 years old. Besides that, there were 19 participants (21.8%) aged 24, and 21 participants (24.1%) between the age of 25 and 38. The sample consisted of 82 (94.3%) participants from the Netherlands or other European countries while 5 people (5.7%) identified as ethnic minorities. The majority of participants, 67 (77%) are defined as continuous-generation students while 19 (21.8%) are considered first-generation students. To address the discrepancies in numbers, it is important to acknowledge that dropout rates and unanswered questions contributed to inconsistencies regarding sample size, resulting in some research questions being analyzed with data from 84 participants, while others were analyzed with data from only 77 or 64 participants.

The students were supervised by internal internship supervisors, who were professionals at their university facilitating the internship experiences of the students. They offered support and guidance as issues arose during the internship (Kunnen et al., 2021). Furthermore, external supervisors, who were professionals in the interns' work field, guided the students during their internship. They ensured that students gained valuable practical experience in the field. Moreover, both supervisors evaluated the students' performance. In this study, the focus lies on the students' perceived support from external supervisors.

The internship, and consequently data collection, spanned approximately five months, with students working part-time in the internship institution. In the introductory meeting for the internships, the study was introduced to the students, and students were invited to send a mail expressing their interest in participating in the study. Additional information and informed consent were given to those who reached out. Anonymity was ensured by taking care that the teachers involved in this study were not aware of the identity of the participants. Participants were reimbursed with 40 euros after finishing the first part of the study and 20 euros after finishing the follow-up questionnaires. Thus, the study made use of convenience sampling for recruiting participants (Sarker & Al-Muaalemi, 2022).

The questionnaires were administered in Qualtrics (https://www.qualtrics.com/). Each week, a link to Qualtrics was sent by e-mail to the participants. Initially, a starting questionnaire about background characteristics of the participants regarding age, gender, and ethnicity, was administered. Then, students filled in 19-24 weekly diary reports, depending on the lengths of their internships. The reports prompted students to reflect on their most relevant experience from the past week related to their internship. Among other variables, the weekly diary reports measured the students' negative experiences by using an open-ended question asking them to describe an important experience during each week. Following closed-ended questions helped to define this particular experience by identifying positive and negative feelings related to it.

Measures Starting Questionnaire

Generational Status of the Student

A question was administered determining the highest level of education achieved by the participants' mother and father. Answers to the questions 'What is the highest level of education your mother achieved?' and 'What is the highest level of education your father achieved?' were categorized into two groups defined by either 'mother/father without university degree' or 'mother/father with university degree'. Students without at least one

parent having obtained a university degree are considered first-generation students (FGS), and students with at least one parent obtaining a university degree are considered continuous-generation students (CGS) (Spiegler & Bednarek, 2013).

Perceived Sources of Support

At the start of the internship, the perceived sources of support during the internship were prospectively determined by the question 'Who do you think you can turn to if you have problems with your internship?'. Participants were asked to rank various representatives on a scale from 0 (not at all) to 5 (always). In this present research, the focus lies on the variables 'Internship Supervisor in the Organization' and 'Friends Outside the University'. This choice has been made to maximize the contrast between professionals (Internship Supervisors) and non-professionals (Friends Outside the University), allowing for a direct comparison of perceived support across different demographic groups. If individuals rank particular representatives high on support-seeking intentions, it suggests that they perceive more available support from them (Conn & Peterson, 1989). Therefore, the students' responses to the question are expected to align with their perceived level of support from individuals.

Weekly Measures

Psychological Needs Satisfaction

The psychological needs satisfaction of autonomy, competence, and relatedness (Ryan and Deci, 2017) related to this experience was measured. The first scale aimed to rank the need for autonomy on a scale from 1 (I felt pressured) to 9 (I felt free to make my own choices). Secondly, competence was ranked from 1 (I felt incompetent) to 9 (I felt competent). Lastly, relatedness was measured by a scale from 1 (I felt alone) to 9 (I felt connected to others). Measures from the final 4 weeks of the internship were aggregated.

Experienced Problems

At the end of each diary questionnaire, the question: 'In general, did you encounter any problems at your internship this week?' was administered to determine whether problems

were experienced at the internship during this week, varying on a scale from 1 (No problems at all) to 7 (A lot of problems). These measures were aggregated across the whole internship.

Data Analyses

First, data was converted to numeric variables and imported to SPSS (Statistical Package for Social Sciences). Background information and demographics of the participants were analyzed. Descriptive statistics, including means, frequencies, and percentages, were computed to summarize key characteristics of the sample. Frequencies and percentages were used to summarize categorical variables, displaying the distribution of age categories, gender, educational level of the participants' parents, and other demographic factors.

A Pearson correlation analysis was conducted to examine the associations between the study variables. A one-way ANOVA was performed to compare the direct effects of student generation on the different study measures. Differences between FGS and CGS were explored. Therefore, the generational status of the students served as a factor while the variables problems experienced, supervisor support, support from friends, autonomy, competence, and relatedness served as dependent variables.

Three moderated mediation analyses aimed to explore the indirect effects of first-generation student status on the three variables of need satisfaction: autonomy, competence, and relatedness, with problems experienced during the internship as mediator, and either supervisor support or support from friends, as the moderator (Figure 2). The analyses allow us to investigate the final hypothesis (H6) and to gain a deeper understanding of the interconnectedness between the study variables.

Results

Assumptions for a One-Way ANOVA and regression analyses were checked and fulfilled (Appendix A), allowing for the continuation of the analyses. Contrary to H1, the One-Way ANOVA analysis revealed that FGS did not experience significantly more problems at their internship than CGS, $F(1,76) = .02$, $p = .88$. To answer H2, FGS did not feel less

autonomy or relatedness, but they perceived fewer feelings of competence than CGS, $F(1,62)$ = 4.29, p = .04 with a medium effect size of η^2 = .07. Moreover, FGS were not less likely to see their internship supervisors as a source for support in comparison to CGS, $F(1,83)$ = .201, p = .65, which is in contrast to H4. In line with H5 however, FGS did perceive their friends as a greater source of support than CGS, $F(1,83)$ = 9.04, p = .003 with a medium effect size of η^2 = .10. Results of the One-Way ANOVA, means, and standard deviations are displayed in Table 1.

Table 1

Means, Standard Deviations, and One-Way Analyses of Variance

Measure	First-generation Students		Continuous-generation students		F	η^2
	M	SD	M	SD		
Problems experienced [a]	2.73	0.86	2.77	0.95	(1,76)0.02	.00
Supervisor support [b]	4.26	0.73	4.17	0.85	(1,83)0.2	.00
Support friends [c]	4.32	1.06	3.33	1.31	(1,83)9.04**	.10
Autonomy [d]	6.03	2.01	6.32	1.52	(1,62)0.33	.01
Competence [e]	5.43	1.84	6.28	1.21	(1,62)4.29*	.07
Relatedness [f]	6.19	1.55	6.16	1.42	(1,62)0.01	.00

*p < .05. **p < .01.

[a] Values reflect the average across the whole internship and were measured on a scale from 1 (No problems at all) to 7 (A lot of problems).

[b] Perceived support from internship supervisor in the organization was measured on a scale from 0 (Not at all) to 5 (Always).

[c] Perceived support from friends outside the university was measured on a scale from 0 (Not at all) to 5 (Always).

[d] Values reflect the average across the last 4 measurement waves, measured on a scale from 1 (I felt pressured) to 9 (I felt free to make my own choices).

[e] Values reflect the average across the last 4 measurement waves, measured on a scale from 1 (I felt incompetent) to 9 (I felt competent).

[f] Values reflect the average across the last 4 measurement waves, measured on a scale from 1 (I felt alone) to 9 (I felt connected to others).

The Pearson Correlation analysis showed that, in line with H3, experiencing problems during the internship was negatively correlated with perceived autonomy-, $r = -.28$, $p < .05$, competence-, $r = -.25$, $p < .05$, and relatedness-, $r = -.31$, $p < .05$, towards the end of the internship. Perceived sources of support from internship supervisors did not significantly correlate with perceived autonomy, $r = .15$, $p > .05$, competence, $r = .06$, $p > .05$, nor relatedness, $r = .12$, $p > .05$. Neither did perceived support from friends correlate significantly with perceived autonomy, $r = -.01$, $p > .05$, competence, $r = -.19$, $p > .05$, or relatedness, $r = -.07$, $p > .05$. To thoroughly examine H6 and the interconnectedness of the variables, moderated mediation analyses were conducted.

Moderated Mediation Analyses

Autonomy as Dependent Variable

In the context of autonomy as the dependent variable, the index of moderated mediation was not significant, $b = -.016$ 95% percentile CI [- .41, .55], providing no evidence for a moderated mediation. Contrary to H6, there was no significant interaction between the generational status of students and the perceived source of supervisor support on problems experienced, $b = .034$, $p = .94$.

With friends outside the university as moderator, the index of moderated mediation was not significant either, $b = .028$ 95% percentile CI [- .36, .36]. There was no significant interaction between the generational status of students and perceived source of friend support on problems experienced, $b = -.061$, $p = .80$.

Problems experienced during the internship had a significant negative effect on autonomy, $b = -.47$, $p = .027$. The direct effect of generational status of the students on levels of autonomy was non-significant, $b = -.36$, $p = .45$, indicating that first-generation status did not significantly predict fewer levels of autonomy.

Competence as Dependent Variable

The index of moderated mediation was not significant for competence as the dependent variable, b = - .013 95% percentile CI [- .33, .44], providing no evidence for a moderated mediation with perceived source of supervisor support as a moderator. For friends outside the university as perceived source of support being the moderator, the index of moderated mediation was not significant either, b = .023 95% percentile CI [- .21, .23], providing no evidence for a moderated mediation.

The relationship between problems experienced and perceived levels of competence was significant, b = - .38, p =.034. Problems experienced during the internship significantly predicted perceived competence negatively. The direct effect of generation status of the students on levels of perceived competence was significant too, b = - .92, p = .02. Thus, first-generation status had a significant negative effect on perceived competence.
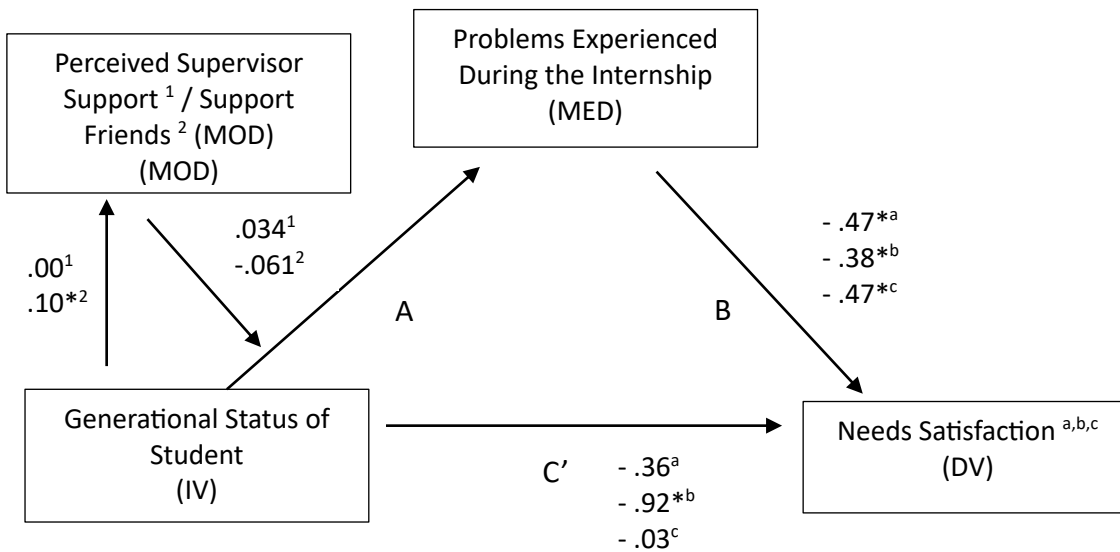
Relatedness as Dependent Variable

For relatedness, the index of moderated mediation was not significant, b = - .016 95% percentile CI [- .42, .52], providing no evidence for a moderated mediation with perceived source of supervisor support as a moderator. The index of moderated mediation was not significant for perceived source of support from friends outside the university as moderator, b = .028 95% percentile CI [- .28, .26], providing no evidence for a moderated mediation.

The relationship between problems experienced and perceived relatedness was significant, b = - .47, p =.013. Thus, the mediating variable problems experienced during the internship significantly predicted relatedness negatively. The direct effect of first-generation students on levels of relatedness was not significant, b = - .03, p = .95, indicating no negative effect of first-generation students on feelings of relatedness.

Figure 2

Model of Moderated Mediation Analysis

Perceived Supervisor Support [1] / Support Friends [2] (MOD) (MOD)

Problems Experienced During the Internship (MED)

Generational Status of Student (IV)

Needs Satisfaction [a,b,c] (DV)

$.034^{1}$
$-.061^{2}$

$.00^{1}$
$.10*^{2}$

A

B

$-.47*^{a}$
$-.38*^{b}$
$-.47*^{c}$

C' $-.36^{a}$
$-.92*^{b}$
$-.03^{c}$

Note. Moderated Mediation with moderation (MOD) of the A-path, which displays the relationship between independent variables (IV) to the mediator (MED). The B-path represents the relationship from MED to the dependent variables (DV). C' represents the direct path from the IV to the DV. For each dependent variable [a,b,c], a separate model was created. The direct effect between IV and MOD was measured with the One-Way Analysis of Variance (Table 1).

$*p < .05$

[1] Supervisor Support

[2] Support from Friends Outside the University

[a] Autonomy

[b] Competence

[c] Relatedness

Discussion

The overall aim of this research was to gain insights into the experiences of FGS and their transition from university to their first professional workplace and whether these are different from the experiences of CGS. We provide an extensive overview of aggregated data from a diary study measured over approximately five months. We found that FGS on average felt less competent towards the end of the internship compared to CGS. Moreover, FGS perceived their friends outside the university as a stronger source of support than CGS.

Further correlations do not relate back to the generational status of the student but rather to the number of problems that were experienced during the internship.

Previous research has shown that FGS not only have more difficulties integrating into the university context (Terry & Fobia, 2019, Yeager et al., 2016) but also tend to have more problems integrating into the professional workplace (Terry & Fobia, 2019). In our study, FGS did not experience more problems during their internship than CGS. A potential reason for this finding may be attributed to the resilience students acquired during their time at university. FGS may exhibit remarkable resilience and adaptability due to navigating challenges in their academic lives. In a longitudinal and cross-sectional study by Azmitia et al. (2018), FGS reported that despite initial marginalization and a lower sense of belonging at the university, there is great persistence and motivation to succeed and finish college. Overcoming initial difficulties in the academic setting left students with growing self-efficacy. Such turning points were often reported as such in which other peers helped students overcome challenges (Azmitia et al., 2018). FGS learn to effectively cope with stress (Clauss-Ehlers & Wibrowski, 2007). Thus, as FGS learn to cope with stressors, feelings of growth and self-efficacy may follow, which together are expected to help FGS successfully navigate their studies, despite initial challenges. Consequently, the process of resilience building at university may have enabled both FGS and CGS students in our study to effectively manage workplace stressors during their internships, with neither group experiencing significantly more problems than the other (Freeman et al., 2017). Another explanation may be that there was no significant difference between FGS and CGS in the amount of resilience and in dealing with problems already at the start of university. Additionally, it is possible that students with lower resilience, potentially also having encountered more problems, already dropped out earlier in their academic careers, resulting in a more homogeneous group by the time they reached the final internship stage. Future research is necessary to investigate

whether lower resilience could potentially be a determining factor in explaining higher university dropout rates of FGS than CGS (Lohfink & Paulsen, 2005).

Thus, this present research did not find evidence that experiencing problems during the internship can be attributed to the generational status of the student, but psychological needs satisfaction towards the end of the internship could partly be attributed to FGS, as they felt less competent than CGS. This finding suggests that insecurities about capabilities and competencies remain more prominent in FGS as they transition from the university context to the workplace context. Since FGS are more often confronted with negative stereotypes and societal expectations associated with their parental background (Yeager et al., 2016), they may experience decreased confidence in their abilities compared to their peers who do not experience anxieties about confirming such negative stereotypes. Consequently, stereotype threat can undermine perceived competence in various domains (Tellhed & Adolfsson, 2017).

On the other hand, we did not find that FGS felt less autonomy or relatedness toward the end of the internship compared to CGS. Suggesting that contrary to experiences at university, where FGS felt less belonging (Jensen & Jetten, 2015, Payne et al., 2023, Stebleton et al., 2014), differences in belonging or relatedness do not remain at the students' first professional work experience. Neither did they feel less autonomy than CGS. Both findings suggest and support the previous idea that resilience and adaptability have developed through academic journeys and help students navigate the workplace setting better. Moreover, the results suggest that organizational environments and dynamics in the workplace are fundamentally different from those in academic settings. The distinction could be due to factors like different support structures, different professional network opportunities, or the practical application of skills. Future research could focus on identifying aspects of workplace environments that contribute to an increased sense of belonging and autonomy among FGS. Examining how these factors compare to the social dynamics in academic settings could

provide insights into why FGS feel more included and autonomous in their professional roles and how we can improve belonging and autonomy during FGS' academic careers as well.

Moreover, this research showed that experiencing problems during the internship is closely linked to psychological needs satisfaction. Thus, experiencing problems impacted the sense of students' autonomy, competence, and relatedness negatively. This is in line with previous research and adds to the current state of knowledge claiming that job satisfaction, including the ability to minimize or overcome workplace problems, strongly predicts psychological needs satisfaction (Busque-Carrier et al., 2021; Schreurs et al., 2014). Therefore, this further underscores the importance of fostering autonomous competencies to overcome challenges within the workplace setting, as this is crucial for enhancing psychological needs satisfaction, which is at the base of intrinsic motivation and self-determination of humans (Ryan and Deci, 2017).

Differences between FGS and CGS were also expected when it comes to which sources of support were preferred when navigating through setbacks and solving problems at the internship. Previous research has found that within the university context, FGS are more likely to seek support from peers since FGS may be more reluctant to ask professors for help compared to CGS (Payne et al., 2023). However, in this present research, FGS did not report perceiving their supervisors as less of a source of support compared to CGS. A potential reason for this finding could be attributed to the internship environment dynamics and support mechanisms distinct from academic settings. Structured support systems inherent in internship programs, including regular check-ins with supervisors could have facilitated communication and support-seeking behaviors between student and supervisor. Thus, due to regular interactions with interns and the supervisor, supervisors are perceived as a source of support and guidance and are often seen as more approachable and readily available. Additionally, the resilience fostered during university may have contributed to the utilization of resources and coping strategies during the internships. The resilience, combined with a drive for personal

and professional growth, may lead to a recognition of the importance of cultivating relationships thereby reducing the reluctance to seek assistance from supervisors or colleagues.

Resources that were developed during the time at university were often derived from the support of friends or peers (Azmitia et al., 2018). We suggested that perceived support from friends may be even more important for FGS than for CGS. This was confirmed as FGS perceived their friends from outside the university as a greater source of support compared to CGS. Results imply that friends are not only highly important stakeholders for FGS and managing their time in college (Azaz, 2022, Payne et al., 2023), but that the importance of peer support remains when transitioning to the first professional workplace. This may be particularly relevant for ethnic minority background students who are often further away from their families and thus generally may rely more on support from their peers (Yosso et al., 2009).

Lastly, perceived sources of support did not moderate the relationship between the generational status of the student and the problems experienced. While perceiving friends or supervisors as a greater source of support was partly dependent on the generational status of the student, it did not impact the amount of problems experienced. This suggests, that while support from different stakeholders is often presumed to moderate the effects of challenges on well-being (Aarntzen et al., 2023, Cohen & Wills, 1985), in this context, perceived sources of support did not effectively moderate the experienced problems of FGS or CGS. Since problems were measured at the end of each week, it is plausible that participants who reported experiencing problems, already perceived a lack of support throughout that week. Thus, perceived support was already ineffective in mitigating those challenges, leading to an absence of association measured between perceived support and problems experienced. By reporting only problems retrospectively, this study may have missed the immediate effects of perceived support on participants' ability to navigate problems at the internship in real time.

Additionally, it is crucial to acknowledge and address this issue as a broader methodological limitation of the study. Perceived support was solely measured in the starting questionnaire, providing only information on the baseline of perceived sources of support at the start of the internships. Fluctuations or changes in perceived support during the internship were not measured and thus the relationship between the variables perceived support and psychological needs satisfaction lacks substantial foundation. Future research could consider adding the weekly measurement of perceived or received support to better grasp the interconnected relationships of the variables.

The analyses conducted in this study provided valuable insights into the relationships between the variables under investigation. The study design of aggregating data that was collected over five months poses unique advantages compared to cross-sectional research, which usually does not capture changes over time. This study provides a deeper understanding of the causal relationships between the generational status of students and their experiences during their internships, measured by observing trends and changes over time. However, the analyses were primarily defined by aggregating data and summarizing averages, enhancing the robustness of findings but overlooking the dynamic nature of real-life experiences and changes over time. To capture the fluctuations over time, alternative analytical approaches that would allow for a more comprehensive examination of the longitudinal dynamics of the study could be considered in future research. Nonetheless, the limited number of weekly retrospective measurements of problems and psychological needs satisfaction could still constrain the depth of longitudinal analyses.

Thus, by increasing the frequency of measurements with a denser time series, future research could offer a more nuanced understanding of how these variables unfold over time. However, motivating participants for such extensive research may pose additional challenges, particularly given the observed missing values and biases regarding participation in this present study. The presence of missing values contributed to fluctuating participant numbers

evidenced by a maximum drop of 27,6 % in the number of respondents across different research questions, thereby compromising the study's reliability. With fewer participants, the variability in responses may increase affecting the consistency and validity of the findings which may also be issued by the relatively small number of FGS (21,8 %) in the sample. This potentially impairs the accurate reflection of the population being studied. Extensive longitudinal research following students along the entire trajectory of their studies and their transition to their professional workplace would mitigate self-selection biases and investigate the effects of resilience or support systems more reliably.

Conclusion

In conclusion, this present study investigated potential disparities between FGS and CGS as they transition from university to their first workplace, focusing on need satisfaction, available resources, and challenges encountered. By addressing this, the study initiates preliminary longitudinal examinations of the district experiences of FGS in their first professional workplaces. Findings indicate that FGS, on average, reported feeling less competent towards the end of the internship compared to CGS, possibly influenced by different societal expectations and stereotypes associated with parental background, potentially undermining perceived competence. Additionally, FGS were found to perceive greater support from friends outside the university, suggesting that FGS rely more heavily on peer support as a potential consequence of gaps in formal support systems or resources available during their university years. Within the methodological context of this study, the interaction between perceived support from friends or supervisors and the generational status of the students could not be established in relation to the problems experienced by the participants.

Further research is needed to gain a deeper understanding of differentiating unique dynamics between university and workplace contexts. Moreover, future investigations should aim to further define the factors influencing the workplace transition of FGS, including

aspects such as resilience, stereotype threat, and a more comprehensive understanding of support networks. Addressing these emerging questions regarding barriers and facilitators in accessing opportunities and resources for students is crucial as it can help develop more effective strategies to support FGS and promote equity in professional successes regardless of different parental backgrounds.

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Appendix A

Analyses Assumptions

Assumptions for a One-Way ANOVA and regression analyses were checked and met. Given that skewness and kurtosis values for all variables were within the acceptable range of -1 to 1 and the visual confirmation from Q-Q plots, we concluded that our data is approximately normally distributed. Outliers were assessed by using boxplots. Homogeneity of variance was assessed using Levene's test. Results indicated that the assumptions of homogeneity of variance was met for all relevant variables ($p > .05$). For the regression analyses specifically, linear relationships were assessed by scatterplots showing a nonlinear relationship, fulfilling the assumption of nonlinearity. A Durbin-Watson Test was conducted and showed for all dependent variables, values near 2 indicating uncorrelatedness of residuals. Lastly, we checked for multicollinearity using Variance Inflation Factor (VIF) values. The VIF values were below 5, indicating no significant multicollinearity among the variables.