Psychosocial Factors and Outcomes of College Internships: An Integrative Review

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Literature Review #3

This review identifies key features of psychosocial factors and outcomes associated with internship participation for college students. The review examined 42 studies, the majority being quantitative and cross-sectional in design. Results indicate that a) since 2010 there has been an increase in the number of empirical studies of the psychosocial factors and outcomes of college internships in the education research, psychology and career development fields; b) The studies commonly focused on internships in business, tourism, and sport management fields; c) The authors cite a broad range of theoretical frameworks, including career construction theory (Ocampo et al., 2020; Pan et al., 2018), social learning theory (Anjun, 2020) and the job characteristics model (Stansbie et al., 2013); d) This review of the research identified several student psychosocial characteristics that may influence internship experiences and outcomes, such as emotional intelligence, proactivity, self-efficacy, and conscientiousness; e) there were positive relationships between internship participation and a number of psychological outcomes. These included psychological outcome measures such as increases in self-perception, perception of surroundings, and mental health indicators, career development outcome measures such as professional development, career adaptability, career commitment, and career exploration, and learning outcome measures such as GPA and skill development. These findings indicate that internships have profound psychosocial ramifications that should be taken into account in their design and assessment. The review may be beneficial to researchers, educators and policy-makers seeking to optimize student internships from a psychosocial perspective. Recommendations for future research and practice are suggested.

Keywords: College internships, psychosocial characteristics of college students, career development outcomes, learning outcomes, psychological outcomes, mental health.

Introduction

Internship participation has been well recognized to be a work-based learning experience that benefits students' college-to-workforce transition (Hora, Wolfgram, & Thompson, 2017). A quality internship may be associated with positive academic outcomes and career development (Chen et al., 2012; Hora et al., 2020; Ocampo et al., 2020; Pan et al., 2018; Surujlal et al., 2010). According to career construction theory (Savickas, 2013), a person cultivates a self and builds a career by imposing meaning on their career-related choices and through interacting with the outside world of work. It is therefore valuable to focus on the psychological aspects of how people find meaning in their work. Recently, a growing body of research has concentrated on the psychosocial characteristics of students who participate in internships and the psychosocial outcomes of internship participation. Even so, the research literature lacks a comprehensive review on this topic. Such an in-depth and comprehensive literature review is essential, as it provides a better understanding of the psychosocial factors of internships, as well as its psychosocial outcomes, which may in turn offer new insights into how to maximize the internship experience and outcomes for college students. Therefore, the aims of this literature review are to a) identify the psychosocial factors associated with internship participation; b) map the current research literature to focus on the psychosocial factors and outcomes of internship participation ; and c) survey the results of this research.

The Definition of Psychosocial Factors

Psychosocial factors are circumstances that affect a person psychologically or socially (Suzuki & Takei, 2013). This broad definition encompasses multiple areas including emotion (positive and negative affect such as confidence, depression, and distress), cognitive behavioral responses (such as stress, sense of control, and self-possession), and social factors including socioeconomic status, gender, ethnicity, education, religion, locality, employment, physical attributes and interpersonal relationships (Suzuki & Takei, 2013). Similarly, Lamkin and Slavich (2016) pointed out that psychosocial factors are a relatively broad "umbrella" term that includes an individual's mental status, psychological tendencies, and social environment. These factors, including states of anxiety, self-esteem, social conflict, and social isolation, can

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shape how an individual relates to their social surroundings and ultimately affect their overall wellbeing (Lamkin & Slavich, 2016). This literature review considers such psychological and social circumstances in the context of student internships, in order to capture the wide range of psychosocial components that affect or are affected by internships. Based on these considerations, we approach psychosocial factors as multi-dimensional experiences that traverse the emotional, cognitive, behavioral and social aspects of life to serve as predictors or outcomes of an internship. The research literature focuses on two such factors, one, the psychosocial characteristics of students who participate in college internships and how those characteristics might impact outcomes; and two, the psychosocial outcomes associated with internship participation.

Methods: Search Strategy and Study Selection

Using the Web of Science Database, we searched the title and associated topic keywords for peer reviewed English articles, using the search terms "college internship" crossed with the following terms: "psychosocial," "psychological," "social," "emotional," "well-being," "career development," "self-esteem," "perception," and "satisfaction." We hand searched the references of key papers and used the "cited by" feature of Google Scholar to search for papers who had cited the key papers. Only those articles which investigated college internships and psychosocial factors were retained. Also, we excluded articles about teacher education and nursing and other health clinical practicums. A total of 42 articles met the inclusion criterion.

Findings

The results are reported below in two parts. In the first part, the key features of the selected studies are shown, including summaries of a) the trends among studies on internship and psychosocial components, b) participants' characteristics, c) use of theory, and d) research methods employed. The second part reports the results of the comprehensive literature review on a) Student psychosocial characteristics, b) Psychological outcomes, c) Career development outcomes, and d) Learning outcomes.

Part I: Trends in Research Literature

The publishing dates for the studies ranged over 35 years, with the earliest article published in 1985 and the latest in 2020. There was a significant increase in the number of articles published after 2010, with 34 of the articles published after that date—indicating that this topic has garnered increasing interest among scholars in the field. Eleven of the articles were published in 2020.

A note on theory. The literature drew on a wide variety of theories, with several focusing on career construction theory

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(Pan et al., 2018; Ocampo et al., 2020), social learning theory (Anjun, 2020) and the job characteristics model (Stansbie et al., 2013). Together, these frameworks provide understandings of how psychological experiences and outcomes are mediated by social relations, and that they have important repercussions for how people perceive their careers.

Participants involved in the quantitative studies. Taken together, the reviewed studies involved 28,637 participants.¹ Of the 38 studies that reported gender, 14,670 women and 13,029 men participated (Gender was not reported in four of the studies). Most studies were conducted in the United States, Taiwan, and China, and although a few studies looked at vocational college students, the majority of

¹ This does not include Hunt et al.'s 2020 study, which is a secondary analysis of a national survey of all students from graduating from higher education in the United Kingdom. The authors do not report the number of participants. The census had a 77% response rate.

participants were university students. The age of participants ranged from 20 to 57 years of age, with most being in their early to mid-20's. The studies reviewed focused on a wide variety of majors, the most commonly reported being business, tourism, and sports management.

Methods employed in the identified studies. Quantitative studies (n=29) were used more frequently than qualitative (n= 6) and mixed methods (n=6) in the reviewed papers, and data in quantitative studies was most often collected using questionnaires. Of the quantitative studies, 18 involved a cross-sectional design, while 11 were longitudinal studies. Among the qualitative studies, 5 conducted interviews, while 2 collected participant reflections and 1 organized a focus group. The mixed method consisted of focus groups, surveys, and interviews. There was also one conceptual paper that focused on the model of internships (Brandon-Lai et al., 2016).

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Many of the quantitative studies reported correlation analysis

results (n=13, 43.3%). In addition, advanced statistical methods were employed, including structural equation modelling (SEM) (n=7, 23.3%), regression analysis (n=3, 10%), and confirmatory factor analysis (n=2, 6.6%). Other statistical methods used in the selected papers included t-test, multivariate analysis of variance (MANOVA), Analysis of variance (ANOVA), chi-square test, growth mixture modelling analysis etc. The qualitative and mixed method studies used a combination of content analysis (n=5), multiple modalities (n=1), thematic analysis (n=1) and a free-listing method (n=1).

Part II: Psychosocial factors and internship participation

The research literature investigates the impacts of student psychological characteristics on internship participation and experience and their potential influence on internship outcomes. Several studies indicate that emotions play a prominent role in shaping students' internship experiences. For instance, higher levels of emotional awareness were found to contribute to interns' overall job satisfaction (Chen et al., 2009). Emotional awareness is defined as the ability to recognize emotions in

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oneself and others. Emotionally aware interns were found to have higher levels of emotional display at work, or the extent to which they felt comfortable showing their emotions. During their internship, interns who received social support from their employers had higher levels of emotional display at work, which in turn increased job satisfaction.

Displaying one's emotions on the job can impede or enhance the internship experience. One study found that emotional masking (or a tendency to hide one's emotions) was negatively related to learning during the internship (Liu et al., 2011). On the other hand, emotional sharing - or a propensity to openly communicate one's emotions – was related to higher levels of learning, stronger relationships with mentors, and higher job satisfaction (Liu et al., 2011). Relatedly, another study found that emotional intelligence (defined in

relation to savviness about office politics, showing an interest in one's work, and other social skills) was associated with a higher likelihood of post-internship employment with the internship host (Maynard, 2003).

Students' level of experience may determine their state of mind during their internship. Wang et al. (2015) found that those with work experience prior to their internship expressed generally stable emotions before and during their internship, with several stating that their experience made them more confident than they were before their internship. In contrast, students without prior work experience tended to describe themselves as nervous about their internship. Interestingly, the latter group also

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appeared to have higher expectations of internships; suggesting that a student's early internship experiences may have particularly high emotional stakes. These results indicate the importance of recognizing the complex emotional factors associated with internships.

In addition to emotional intelligence and display, three related variables reappeared throughout the literature: proactivity, selfefficacy, and conscientiousness. Proactive people tend to be goal-oriented and adept at identifying opportunities, showing initiative, and pursuing meaningful change in their environments (Seibert & Crant, 1999). Thus, interns who displayed proactivity were found to benefit even from low-quality internships, due to their higher likelihood of initiating change in their working environment (Pan et al., 2018). Similarly, goal-oriented students were found to have higher expectations of their internship and of

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what they could achieve during the internship (Moghaddam et al., 2011). These results suggest a positive relationship between future-oriented psychosocial traits like goal orientation and proactivity on career outcomes.

While proactivity here refers to an intern's ability to initiate change in their working environments, self-efficacy is related to *belief* in one's abilities (Lu et al., 2016). Self-efficacy can be further defined as "individuals' expectations regarding personal efficacy, such as...coping behaviors, the expenditure of effort, and the length of time they are able to persist against obstructions" (Tsai et al., 2017).

In a survey of student interns working in tourism, the authors found that personal efficacy positively influenced internship efficacy, or participants' readiness to acquire knowledge and skills over the course of their placement. A comparable study found that interns' self-efficacy and proactivity are positively related to each other. Together, they serve as indicators of overall job performance during their internship, as measured by students' self-assessment following their internship (Lu et al., 2016).

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Another line of inquiry explores the significance of conscientiousness among interns. Grehan et al. (2011) explain conscientiousness as a personality characteristic that includes six facets: competence, order, dutifulness, achievement striving, self-discipline, and deliberation. In a survey of student interns, the researchers found that conscientiousness was significantly related to internship performance. Internship performance was measured by participants self-reporting, academic records, and internship evaluations from their supervisors. Neuroticism, defined as the degree to which individuals experience negative emotions that stem from irrational beliefs, was negatively correlated with mean internship ratings; however, the relationship was not statistically significant.

In a related study, Ocampo et al. (2020) measured conscientiousness and career adaptability before and after internships, in addition to a control group who had not participated in an internship. Career adaptability is "the readiness to cope with the predictable tasks of preparing for and participating in the work role and with the unpredictable adjustments prompted by changes in work and working conditions" (Savickas, 1997, p. 254) and it is measured in relation to four psychological traits that interns display at work: levels of concern, control, curiosity, and confidence (Porfeli & Savickas, 2012). Interns who scored high on conscientiousness

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did not demonstrate steeper growth in career adaptability during and after their internship than those who were low on conscientiousness. However, conscientiousness was positively related to higher levels of career confidence among interns and non-interns alike. This raises further questions about the role conscientiousness plays in career preparation, for interns and non-interns alike. Participants with high levels of conscientiousness who did not opt for an internship may have felt that they did not need the internship due to their high career confidence. But participants with high levels of conscientiousness who participated in an internship may have done so out of curiosity or eagerness about their future careers.

Part III: Psychosocial outcomes of internship participation

Psychological outcomes of internship participation. In

addition to the psychological factors that can influence students' internship experience, the literature measures several psychological outcomes that students experienced during and after their internships. One of the most common variables in studies of internship quality and success is internship satisfaction, which can be considered as both a psychological outcome and a career outcome. Satisfaction involves professional rewards and positive feelings about one's position (Gault et al., 2000). It is important to note that levels of satisfaction differed across fields. For instance, perceptions of both one's major and one's profession following an internship were particularly negative for hospitality and tourism student interns (Kim et al., 2013, Koc et

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al., 2013). These two studies found that students reported low satisfaction with their internship, which resulted in unfavorable perceptions of the field. Lower levels of satisfaction may be due to the seasonality of the industry, which may lead to a feeling of job insecurity (Kim et al., 2013).

While satisfaction is an important measure of internship quality and success, over the course of our review we were able to identify more complex psychological outcomes of internships. As part of the process of transitioning from college to the workplace, internships have a wide variety of cognitive and psychological effects. The literature suggests that these effects often entail a shift in individual perception – both in terms of how interns perceive themselves, and how they perceive their surroundings. The research literature has sought to examine the nature of these shifts in perception, and to trace their ramifications.

Internships provide opportunities for self-exploration and reflection (Bennet et al., 2017), for improving self-confidence and cultivating a "self-concept" (Surujlal et al., 2010), and for cultivating resilience and curiosity (Boni et al., 2019). According to Popov et al. (2020), internships also allow students to renegotiate their "identity project." An identity project is an ongoing process of shaping and interrogating one's identity, for example by asking questions such as "Who am I? What matters to me? Who do I want to become? What kind of person do I want to be?" The authors argue that an identity project "enable[s] young people to move forward when making decisions about transition from education to work." In focus group discussions, student generally

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reported that their internship provided the opportunity to renegotiate their identity (Popv et al., 2020). Furthermore, internships may motivate students to focus renewed importance on their own personal growth. In a longitudinal study of business interns, students after their internship placed more value on interpersonal skills like listening and communication, than on technical skills such as problem solving or GPA (Green et al., 2011).

In addition to students reporting deeper self-reflection, the literature traces the different ways they perceive and relate to their surroundings during and following their internship. Most notably, several studies found that internships have a significant influence on how students perceive their field and future careers (Chen et al., 2012; Kim et al., 2013; Wang, 2014; Koo et al., 2016). For instance, students also experienced different psychological outcomes depending on whether their work was major-related. One study found that non-major-related internships can send

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"negative signals, such as a lack of focus or second thoughts about one's major" (Zuo et al., 2019).

While much of the literature focused on the positive psychological outcomes of internships, a few articles argued that internships can have a negative impact on mental health due to stress and anxiety. According to Solway (1985), stressors during an internship can be both personal and work-related: encompassing the challenges of a steep learning curve, adaption to a new supervisor, and the need to "prove" oneself; as well as "geographical, social, and psychological factors only indirectly

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associated with the internship, but...associated with leaving the university setting for the internship site" (Solway, 1985). One study reports that stress is related to lower internship satisfaction and higher levels of turnover among students (Mensah et al., 2020).

Similarly, anxiety encompasses personal and professional worries. According to one study that measured the anxiety levels of student interns, internship anxiety "entails anxiety of personal abilities, interaction with superiors, job scopes, and environmental aspects (Wang et al., 2014). After measuring anxiety levels pre- and post-internship, the authors found that students experienced slightly lower levels of anxiety after their internship. Contrary to the findings of Mensah et al. (2020), no relationship was found between anxiety and internship outcomes such as satisfaction and employability, or between anxiety and the levels of commitment participants had to their career after their internship.

Career development outcomes of internship

participation. Another theme across the research was the impact of internships on students' professional development. Internships offer opportunities for professional development because they may shed light on a students' professional strengths and weaknesses and provide them with the chance to develop and acquire skills. According to Williams et al. (2020), professional development is an "integral part of the growth of a college student." The authors measured

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professional development among interns through six survey items: ability to observe a situation, ability to evaluate a situation objectively, demonstrated interest in learning, ability to formulate questions, and a tendency to seek opportunities in order to increase their knowledge and skillset. They found that students

who displayed better communication with clients, better overall appearance, and more punctuality were more likely to experience greater professional development. These items indicate the multifaceted nature of professional development.

Beyond the broad outcome of professional development, the literature has focused on some specific psychosocial outcomes of internships - most notably career adaptability and occupational commitment. One study that measure the effects of internship participation on different aspects of career adaptability (namely concern, control, curiosity and confidence) found that, in comparison to those who had not partaken in an internship, all dimensions of career adaptability increased over time (Ocampo et al., 2020). Surujlal et al. (2010) measured career adaptability in relation to the improvement of performance, improvement of

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coping skills, and improved ability to work under pressure. Their findings showed that internships promote career adaptability.

The outcome of occupational commitment and exploration was also a recurring theme across the literature, or the planning and anticipation of one's career. It appears that some students consider internships to be an opportunity for career exploration, or a way to learn about a particular type of work and whether they would enjoy it. For example, one participant saw their internship as "a way to...understand the reality of whatever career choice I'm looking at." (Hora et al., 2020). Another study conducted interviews with students covering topics related to their expectations, experiences, and perceived outcomes of their internships. Participants reported learning more about the workplace and working with other people than they expected. However, they tended not to look for connections between the classroom and the workplace, making it difficult to apply skills from one setting to the other (Zehr et al., 2020). In contrast, another study found that students reported enhanced understandings of cultural and social differences, which in turn caused them to reflect on the limits of their institutional education (Boni et al., 2019). The differences in these findings are perhaps due to the nature of the internships: while both focused primarily on engineering students, Boni et al. studied interns who had participated in an internship abroad with an outreach component. Their placements afforded them the chance to learn about cultural differences and develop cultural sensitivities. This leads to further questions about whether occupational commitment and exploration is informed by the extent to which interns regard their work as meaningful.

Learning outcomes of internship participation. The literature also focuses on the many ways in which internships result in a variety of learning experiences that traverse academic, professional and personal realms. In a study that used a free-listing method to map common phrases students used to discuss their internships, 73.5% of the participants referenced "learning" (Hora et al., 2020). Furthermore, the literature reflects the different forms of learning that internships might entail, including external regulation and self-regulation learning (Goller et al., 2020), social

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learning (Anjun et al., 2020), self-commitment to work and learning (Chen et al., 2012), and informal and formal learning (Zehr et al., 2020).

We found several key learning outcomes in the research literature, including academic outcomes, learning new skills, and the enhancement of overall employability. The effects of internships on academic performance were mixed. Two studies found that those who participated in internships had significantly higher GPAs upon graduation (Knouse et al., 1999; Binder et al., 2015). In contrast, Knechel et al. (1987) found that the "academic benefits of internships are narrowly confined (p.807)." They found no statistically significant differences between the academic performance of interns and non-interns. Another more recent study also found that internships had a negative effect on academic performance during an internship. After their internship, students' grades recovered slightly (Prescott et al., 2020). It is possible that students earned lower grades in this case due to the mandatory nature of their internships, where they were required to juggle work and school and may have had lower levels of control over this balance.

Beyond grades, much of the literature testifies to the ways in which internships enrich education and learning on a psychosocial level. For instance, a qualitative study of engineering interns found that interns reported greater levels of knowledge and imagination, a more curious or expansive learning disposition, and educational resilience following their internships (Boni et al., 2019). As one of the interns states, "I wanted to learn, and to evolve, progress, and also to see what practical points my studies had... [the internship] was a way to put into practice what I had studied." This indicates the nuances of learning over the course of an internship, where participants are given the opportunity to flourish beyond the standards of the classroom.

A number of articles indicate that internship participation leads to the development of new career skills. These include soft skills such as communication and networking (Pusiran et al., 2020; Zehr et al., 2020), awareness of cultural differences (Willis et al., 2019), and what have been termed "political skills," or the ability to understand others and to achieve personal and professional goals (Ferris et al., 2005; Brandon-Lai et al., 2016). Learning is

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moderated by the working environment and social support from colleagues and supervisors. For instance, one study found that when interns were required to engage in demanding tasks that afforded them simultaneous levels of independence and support, they developed different modes of learning. These included asking for feedback, individual problem-solving, connecting workplace practice to theoretical knowledge, and adapting to work situations (Goller et al., 2020).

As several of the studies indicate, this increased variety of skills, including greater awareness of the working environment and career adaptability, enhance students' employability post-internship, or their likelihood of securing a job (Knouse et al., 1999; Maynard, 2003; Surujlal et al., 2010). One project found that among those who had a job upon graduating, more had participated in an internship than not. For those without a job, more had not participated in an internship (Knouse et al., 1999).

To return to psychosocial outcomes, one study linked disposition and outlook with employability after an internship. Chen et al. (2018) found that students who were satisfied with their school and major, as well as their own levels of commitment, tended to have higher employability. The top three factors for interns' employability, were emotional control, tolerance of pressure, the ability to adapt to changes, and better industry knowledge (Chen et al., 2018). Another study found employability to be positively associated with emotional intelligence (Maynard, 2003). These studies demonstrate the interrelation of psychosocial factors and outcomes and suggest that granular attention to these components can enhance our understanding of the concrete benefits and results of student participation in an internship.

Insights for Future Research

In this review, we sought to provide an overview of the growing literature investigating different psychosocial factors associated with internships. Below we present some recommendations for future research, which should be kept in mind when planning, evaluating and studying the psychosocial factors of internships.

Include More Diverse Participants

There is a lack of research on how identity-related factors such as gender, ethnicity and class can affect internship experiences and internship outcomes. With the exception of one study, which found that nonwhite students were less likely to graduate without an internship experience (Knouse et al., 1999), none of the studies provide an in-depth examination of identity-related factors and internship participation. As the results of Knouse et al.'s study suggest, policy makers and educators need to provide targeted opportunities for minoritized students to participate in an internship. Therefore, understanding the different identities and perspectives that individuals bring to their professional lives should be a central component of designing, implementing and evaluating student internships. Additional research is required to determine the effects of identity-related factors on both internship experiences and other psychosocial outcomes such as stress, career adaptability, and self-efficacy.

Expand Research Methods

Most of the studies we reviewed were quantitative, where data was most commonly collected using questionnaires. The mixed-method and qualitative studies generally addressed a wider range of psychosocial components than accounted for in the quantitative studies because they encouraged students to explore their internship experience and career planning in more depth. Future studies could use qualitative methods such as focus groups, interviews, and thematic analysis to account for the spectrum of personal and professional experiences that are associated with internship participation.

We reviewed significantly more cross-sectional than longitudinal studies. The most common research design among the cross-sectional studies was a questionnaire, usually distributed in the weeks following an internship. But there is a need to explore the ways in which internships impact identity, mentality and career outcomes over a longer period. Future studies might supply opportunities for follow-up discussion and reflection to account for the long-term psychosocial effects of internship participation. Further longitudinal studies are also required to improve understanding of how educators and employers can best support students before and after their internship, not just during an isolated period of work experience.

Beyond Satisfaction

While satisfaction was a common outcome of internship participation, we argue that it is not a sufficient measure of the deeper emotional and career-related components of internships. In order to present a more comprehensive picture of how interns are effected by their internship, the research should continue to unpack the traits that influence satisfaction itself (such as confidence or anxiety), to explore the factors that impact satisfaction over time (such as compensation or career commitment), and to measure more fine-grained psychosocial outcomes of internship participation.

There is also a need to consider interns who are not satisfied with their internship. While the results generally found internships to be positively related to high levels of personal and professional growth, this cannot be generalized to all internships. This became clear in the studies we reviewed that found lower levels of satisfaction in the tourism industry, sports management, and among unpaid interns (Kim et al., 2013; Koc et al., 2013; Koo et al., 2016; Hunt et al., 2020). Consequently, there is a need for further consideration of the relationship between internship quality, interns' success and satisfaction, and factors such as field of study, compensation and job-major fit.

Another psychosocial outcome that warrants further investigation are the mental health outcomes of internships such as stress and anxiety. More studies are needed examining the mental health implications of internships, especially for disadvantaged groups such as non-white-students, disabled students, and first-generation students.

Supporting Student Interns

Many of the studies highlight the positive significance of mentorship and social support on internship satisfaction (Chen, 2009; Kim et al., 2013) and learning outcomes (Liu et al., 2011; Gollar et al., 2020). However, few expand on the role mentorship may play in psychological support and encouraging personal development. Therefore, there is a need for further research on the specific forms of psychosocial support that employers, educators and other mentors can provide which allow students to flourish in an internship. For instance, future research might explore how mentors can protect students' mental health and wellbeing before, during and after their internship.

Another area that would prove fruitful for further study is the question of how employers and educators can cultivate interns' personal traits that may positively influence to future success. Clarifying which personal traits are socially malleable and which are more fixed or durable will be important to target educational and internship interventions to foster outcomes such as confidence, self-efficacy, proactivity, and career adaptability. Moreover, there is a need to identify the ways in which educators, employers and mentors can support students who are not very confident or proactive, who feel more anxious about their internship and who have lower self-efficacy and emotional intelligence. The exact nature of effective support should be identified across various student groups, including underrepresented students.

Conclusions

This literature review summarizes the trends, features and results of the studies on the psychosocial factors of the internship and the outcomes resulting from internship participation. Although studies of the psychosocial components of internships have increased since 2010, further explorations are needed of the granular psychological factors and outcomes that effect students' internships experience. For example, the mental health outcomes of internships should be considered more robustly in order to determine different ways to protect student interns' wellbeing before, during and after their internships. More longitudinal and mixed-method studies would be useful in clarifying how this protection of students' wellbeing could be achieved. In addition, further considerations of internship outcomes are needed that go beyond the question of whether students are satisfied or not satisfied with their internships. In sum, the directions suggested above would foster a more in-depth and sensitive approach to psychosocial dimensions of internship participation, which in turn could influence research practices and policy.

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