ASSESSING THE NEEDS OF EDUCATIONAL PSYCHOLOGY GRADUATE STUDENTS: PERCEIVED AUTONOMY SUPPORT AND BASIC PSYCHOLOGICAL NEEDS

By

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As members of the Master's Committee, we certify that we have read the thesis prepared by *Travis Dean*, titled *Assessing the Needs of Educational Psychology Graduate Students: Perceived Autonomy Support and Basic Psychological Needs* and recommend that it be accepted as fulfilling the dissertation requirement for the Master's Degree.

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LAND ACKNOWLEDGEMENT

We respectfully acknowledge the University of Arizona is on the land and territories of Indigenous peoples. Today, Arizona is home to 22 federally recognized tribes, with Tucson being home to the O'odham and the Yaqui. Committed to diversity and inclusion, the University strives to build sustainable relationships with sovereign Native Nations and Indigenous communities through education offerings, partnerships, and community service.

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Abstract

This thesis explores the fulfillment of basic psychological needs (autonomy, competency, and relatedness) and perceived autonomy support among educational psychology graduate students at a public university in the southwestern United States. Utilizing Self-Determination Theory (SDT) as a theoretical framework, this study adopts a quantitative descriptive survey methodology to investigate the extent to which these needs are met within the department. A sample of 37 graduate students participated, providing insights through the Basic Psychological Needs Satisfaction and Frustration Scale (BPNSFS) and the Perceived Autonomy Support Questionnaire (PASQ). The findings reveal that the majority of students experience high levels of psychological need satisfaction and perceive substantial autonomy support from faculty, indicating a positive educational environment that fosters student well-being and motivation. However, variations exist across different student demographics, suggesting areas for further improvement. The study underscores the importance of nurturing environments in graduate programs that cater to the diverse needs of students and highlights the role of autonomy support in enhancing educational experiences. Recommendations for educational practices within the department include enhancing guidance, fostering community interaction, and providing increased support for research and coursework. This research contributes to the broader discourse on graduate education by emphasizing the need for environments that support the holistic development of students, aligning with SDT's emphasis on the critical role of autonomy, competency, and relatedness in fostering student success and well-being.

Keywords: self-determination theory, basic psychological needs, graduate students, educational psychology, perceived autonomy support, needs assessment

Chapter 1: Introduction

Graduate school programs are pivotal in creating an academic environment that not only challenges graduate students intellectually, but also nurtures their professional skills, helps them find purpose, and enables them to make meaningful contributions to society through their academic journey (Ninman & Chagnon, 2023). Beyond the pursuit of academic excellence, the journey through graduate education is influenced by self-determination, personal flourishing, and the satisfaction of basic psychological needs (Appleseth et al., 2023). These elements are an essential in academic, professional, and personal development and success.

However, graduate students are facing higher levels of anxiety, depression, feelings of isolation, are sometimes unmotivated, stressed, and lack necessary support to succeed in their academic journey (Amida et al., 2020; Appleseth et al., 2023). These challenges span personal, academic, and socio-economic domains ranging from individual well-being and cultural differences to academic pressures and financial constraints (Rotem et al., 2021; Singh & Alhulail, 2022). Educational institutions, or more specifically academic departments in which graduate students work within, may be able to acknowledge a multitude of these challenges, but do not have much control over factors that challenge graduate students outside of the immediate academic environments. This underscores the importance and opportunity to create nurturing spaces that not only accommodate the diverse needs of graduate students but also actively contribute to their well-being, motivation, and academic achievement. Such a support system within the academic settings is essential to ensure that all students have resources and environment within their graduate program necessary to thrive.

Many academic departments which graduate students are affiliated with, have, and continue to make commendable contributions to recognize and address challenges the graduate students face (Forrester, 2021). Given the complexity of graduate student needs and the efforts by academic departments to address them, these challenges call for continuous evaluation and adaptation of support

strategies to ensure they remain effective and responsive. Adopting a lens like self-determination theory (SDT) provides a structured and evidence-based approach to assessing and improving department policies and climate. This evolving environment fosters opportunity for a collaborative approach to deepen the understanding of graduate students' needs and how to support them (Forrester, 2021).

The application of SDT at the department level, may be one solution to better understand and support the basic psychological needs - autonomy, competency, and relatedness - of its graduate students within the context of a department's immediate academic environment (Curren, 2023). Understanding the role of autonomy support, which are the practices of teachers that offer freedom for students to make their own decision, within the framework of SDT is also an important step in assessing basic psychological needs (Okada, 2023). SDT and autonomy support illuminates the vital role that educational settings play in either facilitating or hindering the fulfillment of basic psychological needs. By adopting an SDT framework, we can critically evaluate how graduate programs are designed and how they operate to support or impede student well-being, motivation, and academic achievement.

Conducting a needs assessment offers a way forward, enabling us to build on existing strengths within academic departments and establishing a baseline measure of graduate students' current status regarding their basic psychological needs and perceived autonomy support (Soriano, 2013). Collecting data on these dimensions can inform strategic decisions about resource allocation and the development of support mechanisms tailored to support graduate students. Unlike program evaluations, which primarily assess the effectiveness or impact of existing services or programs, a needs assessment focuses on identifying the current status of students' needs and aspirations (Soriano, 2013). The aim here is not to evaluate specific courses, programs, teaching methods, or efficacy of services offered, but to understand the unmet needs within the academic environment.

Graduate school programs play a crucial role in both challenging and supporting students intellectually and professionally, yet among the many challenges graduate students face, academic

departments can do more to decrease the challenges in the immediate academic environment. Adopting a self-determination theory informed needs assessment can provide a strategic approach to understanding and enhancing the graduate student experiences focusing on autonomy, competency, and relatedness beyond the efficacy and existing academic programs and services. This paper aims to examine educational psychology graduate students at a public university in the southwestern United States, assessing their basic psychological needs fulfillment, perceived autonomy support, and way in which those graduates think their needs can better be fulfilled.

Purpose of the Study

The primary purpose of this study is to conduct needs assessment by quantitatively exploring the perceived autonomy support provided by the faculty and explore the satisfaction and frustrations of basic psychological needs of autonomy, competency, and relatedness among educational psychology graduate students. Grounded in constructivism and self-determination theory this study aims to:

1. Quantitatively describe and analyze the extent to which basic psychological needs of the graduate students in the Educational Psychology (EDP) department are being met using the Basic Psychological Needs Satisfaction and Frustration Scale (BPNSFS) (Van der Kaap-Deeder, et al., 2020).
2. Quantitatively describe and analyze the extent to which graduate students in the Educational Psychology (EDP) department feel that their autonomy is supported by their faculty using the Perceived Autonomy Support Questionnaire (PASQ) (Legate, et al., 2012).
3. Identify any inequities in the department's ability to meet the basic psychological needs of students' demographic differences.
4. Identify areas for improvement based on quantitative findings of the open-ended responses from EDP graduate students.

5. Inform educational practice of the EDP department to enhance perceived autonomy support and basic psychological needs of the graduate students.

In essence, the purpose of this study is to leverage a quantitative descriptive survey methodology to illuminate how EDP graduate students' basic psychological needs are being met within the context of the EDP department and the level of autonomy support they perceive from faculty. Through this exploration, this study seeks to offer evidence-based recommendations for enhancing the educational environment to support the graduate students' success, well-being, and overall ability to flourish within their academic program.

Research Aims and Questions

- **RQ1-** *To what extent are the EDP Graduate students Basic Psychological Needs being meet?*
- **RQ2**- *To what extent do the EDP Graduate students feel that their autonomy is supported by their faculty?*
- **RQ3-** *How can the EDP department enhance support for graduate students in fulfilling their BPN?*

Chapter 2: Literature Review

Introduction

Graduate school programs can shape the academic, professional, and personal futures of students, serving as a bridge between undergraduate studies and the broader realms of academia, industry, and knowledge creation. These programs are instrumental in fostering intellectual growth, nurturing personal interests, and enhancing professional and practical skills, empowering students to contribute meaningfully to society (Ninman & Chagnon, 2023). Supportive academic environments that meet student basic psychological needs have shown to influence their academic satisfaction and consequently their academic achievement, overall wellbeing, and students' ability to complete their program (Schenkenfelder, et al., 2020). However, graduate students encounter a range of challenges that can adversely affect their well-being and academic success (Appleseth et al., 2023). Notably, mental health issues, including heightened levels of anxiety, depression, and loneliness, stress, amotivation, and a perceived lack of support (Appleseth et al., 2023). All highlight the critical need for supportive educational environments. Such environments not only facilitate knowledge sharing among academics but also underscore the importance of communal learning and collaboration (Al-Kurdi, et al., 2020). Furthermore, prior research has pinpointed academic performance, work and family obligations, socioeconomic, and institutional challenges as key factors influencing graduate program dropout rates (Rotem, et al., 2021; Singh & Alhulail, 2022). Evidently, the quality of motivation and effective time management significantly impacts graduate students' success. These insights underscore the profound effect educational environments have on the success and well-being of graduate students.

Amid these challenges, a shift has occurred in the perception of higher education emphasizing a consumerist view (Gunn, 2023). This shift redefines the relationship between students and universities towards a consumer-service provider model, where universities cater to students' desires and outcomes (Molesworth, et al., 2010). Nonetheless, the integration of self-determination theory (SDT) into

graduate programs emerges as a compelling strategy to foster a nurturing environment and supportive educational environment. Zak-Moskal and Garrison (2020) underscore the potential for SDT to enhance success in higher education and student retention. Due to the diverse and multifaceted challenges graduate students face it is crucial that a baseline measure of those challenges is taken to assess the need for intervention. Needs evaluation offers a multidisciplinary approach, emphasizing the importance of identifying the actual needs within a community or organization and the practical steps to address them (Soriano, 2013). This needs assessment calls for a detailed explanation of the current status of the community and intended outcomes based on a theoretical foundation.

In the context of graduate education, conducting a needs assessment within the framework of SDT could assist in identifying and addressing the challenges faced by graduate students. SDT has a focus on basic psychological needs of autonomy, competency, and relatedness as fundamental to motivation and well-being (Deci & Ryan, 2000). By conducting a needs assessment grounded in SDT, academic departments can uncover the areas where students may lack autonomy, feel incompetent, or experience a sense of disconnect from their academic community. This approach identifies a baseline measure of the challenges within the framework of basic psychological needs, but also aligns with the constructive strategies that support student's intrinsic motivation.

Self-Determination Theory and Basic Psychological Needs

My investigation will begin with the core principles of SDT, providing a comprehensive foundation for the subsequent exploration of its role in graduate education. SDT is a framework that explains human motivation and well-being, offering a holistic approach to understanding and improving behavior in various aspects of life. It provides both philosophical and practical insights for family, education, work, healthcare, and clinical settings (Ryan & Vansteenkiste, 2023). SDT is an organismic approach where individuals must sustain constant exchange with an environment that presents both affordances and challenges that either support and satisfy or hinder and frustrate one's needs.

Individuals exhibit organization through hierarchical coordination resulting in adaptive behaviors trending towards autonomy and homonymy. The organizational framework is also developmental and under the key assumption that individuals are purposive entities and living things, with an internal propensity for growth, rather than objects of external manipulation.

Even though this organismic approach yearns for active growth, there are necessary components for optimal learning. SDT empathizes that the three basic psychological needs play a central role in shaping human motivation, well-being, and one's ability to act autonomously within an environment. Autonomy is the need and ability to experience volition and willingness in using one's actions, thoughts, and feelings (Deci & Ryan, 2000). Relatedness is the need and ability to experience connection, belonging, and care with others. Competency is the need and ability to experience or understand effectiveness and mastery of one's actions, thoughts, and feelings. Satisfying these needs have shown to directly support one's well-being, but also well-being within specific settings such as the workplace or the classroom (Deci & Ryan, 2000). The need for competence is best satisfied in an environment that afford optimal challenges, positive feedback, and opportunities for growth.

Needs satisfaction and frustration are conceptually distinct (Vansteenkiste, et al., 2023). Needs satisfaction refers to the fundamental fulfillment of psychological needs which is associated with numerous positive outcomes such as enhanced well-being, increased intrinsic motivation and resilience. On the other hand, needs frustrations refers to the needs being unmet or obstructed and leads toward dysfunction and ill-being (Ryan & Deci, 2000). Frustration of autonomy occurs when a person' sense of volition is compromised, competence frustration arises when individuals' experiences or feedback undermines their sense of mastery, and relatedness frustration is the experiences of isolation, rejection, or neglect (Ryan & Deci, 2000; Vansteenkiste, et al., 2023).

In the realm of academic environments, students' satisfaction with their field of study, enjoyment of class, relationships with faculty, advisors, and peers have been closely linked to success of

students including lower attrition rates and higher GPAs (Schenkfenfelder et al. 2020). Moreover, within the framework of SDT, the role of volitional autonomy in one's chosen field plays a large mediating role in the relationship between faculty support, peer support, and major satisfaction. Autonomy support increases intrinsic motivation which improves learners' development and performance in assignments and is crucial in the internalization and pursuit of educational goals and academic performance (Ma, 2021).

Autonomy Supportive Environments and Perceived Autonomy Support

Autonomy is not seen merely as independence from external influences but as an adaptive, self-governing capacity, being nurtured by satisfying basic psychological needs and supported by favorable conditions (Deci & Ryan, 2013). Supporting a student's autonomy and ability to self-govern in an educational environment involves fostering a classroom environment and teacher-student relationship that encourages students' self-direction. Autonomy support is foundational as it underlies and boosts all other basic psychological needs (Collie, et al., 2024). This encompasses the teacher's attitudes and actions during instruction, identifying students' autonomy needs and nurturing their inner motivation, all of which are crucial in creating an autonomy supportive environment (Reeve, 2016).

Autonomy supportive teaching is characterized by teaching practices, actions and behaviors that provide choices in learning tasks, allow self-paced learning, and provide meaningful rationale to students with efforts to incorporate the personal interests, perspectives, and feelings of the students (Collie, et al., 2024). While minimizing the use of pressure and demands, these autonomy supportive teaching practices involve taking students' perspectives, acknowledging students' feelings, and providing options for choice (Black & Deci, 2000). Autonomy support exists in three kinds: *organizational* (e.g. involving students in classroom management issues), *procedural* (e.g. offering students choices to present their competency), and *cognitive* (e.g. providing opportunities for students to self-evaluate, generate their own solutions and ideas) (Stefanou, et al., 2004). For example, clarifying the relevance of

tasks to students aligns with cognitive autonomy support, as it helps students make connections between learning activities and personal objectives. Being responsive to student feedback aligns with organizational and cognitive autonomy support. It gives students a voice in management of class activities and cognitive autonomy support for its respect toward student perspectives and ownership of their learning. For procedural autonomy support, it can be exemplified by allowing students to select tasks that align with their interest and ability to demonstrate their skills. Although each type of autonomy support plays a vital role in meeting various needs of students, cognitive autonomy support is often highlighted as it leads to higher order thinking and self-regulation which are crucial for long-term educational outcomes.

Another factor that supports autonomy in educational environments is the *provision of* or *sense of choice* students feel over their learning activities (Ryan & Deci, 2020). Perceived autonomy support refers to the extent to which individuals feel their autonomy and sense of choice is supported by their social environment, such as teachers and peers (Sierens, et al., 2009). Motivational climate theory states that a motivational climate is the collective understanding of environmental factors at the group level that influences the type, quantity, and significance of their motivation beliefs (Robinson, 2023). In the context of graduate education, gaining an understanding of the students collective understanding of their perceived autonomy should highlight the degree to which students perceive their autonomy to be supported by their faculty. Thus, highlight the degree to which academic departments are, or are not, motivational climates.

Autonomy support and autonomy supportive practices, which center on behaviors that facilitate volitional functioning, foster needs satisfaction, intrinsic motivation and autonomous regulation, foundations for creating an autonomy supportive environment (Mageau & Joussemet, 2023). By exploring the impact of basic psychological needs and autonomy support on graduate students, my aim

is to offer valuable insights into how academic institutions can enhance their support for graduate students on their academic journey.

Students as Consumers of Higher Education

Creating an autonomy support environment within academic departments is important, yet also becoming somewhat of an expectation. Students as consumers of higher education rests on the shifting view of education as holistic learning experiences to financial transactions or the commodified service of learning or earning credentials (Gunn, 2023). Growing marketization of higher education has redefined the relationship between students and universities towards a consumer-service provider model, where universities cater to students desires and outcomes (Molesworth, et al., 2010). Common metaphors for this idea include students as clients (students consume learning services), students as co-producers (education as cooperative between students and teachers), or students as pawns (students are small piece of the larger system) (Gunn, 2023).

The motivations for pursing higher education vary, with some students aiming to “learn”, while others seek to “earn” skills or degrees for future careers (Gunn, 2023). Additionally, higher education institution responds by marketing programs and degrees as pathways to success, empathizing the positive benefits of attaining credential and participation in their offerings (Molesworth, et al., 2010). Universities market themselves through lifestyle promises, emphasizing employability and the skills they offer as means to an end, however, those who do not complete a program have benefits as well. Incomplete education yields return in increases access to job offerings, technical or vocational skills that can be applied to an individual’s field or workplace, technical abilities, communication skills and lifelong learning outside of academic programs (Giani et al., 2020). Beyond immediate career outcomes, educational attainment also offers improved health outcomes, as the relationship between education and individuals wellbeing and societal health is increased by the value of higher education (Zajacova & Lawrence, 2021).

As the students as consumers mentality gains traction among students and universities, demands for higher education services and outcomes continue to increase (Bunce, et al., 2017). This shift influences the curricula, teaching practices, and institution priorities, emphasizing the need to cater to student expectations and deliver tangible outcomes. Additionally, this shift in mentality has broader implications for student wellbeing and achievement. Some argue that consumeristic attitudes may diminish students autonomy, thereby affecting motivation and engagement (Morris, 2022). Using self-determination as a framework, Morris empathizes the importance of fostering environments that meet students' needs for autonomy, competence, and relatedness, thereby promoting intrinsic motivation, wellbeing, and academic success (2022).

The influence of consumerism extends to broader areas of life, such as health outcomes and societal contributions, highlighting the complex interplay between education and well-being. However, this shift has also raised concern about diminished student basic psychological needs, prompting call for environments that promote autonomy, competence, and relatedness (Morris, 2022; Zajacova & Lawrence, 2021). In the context of graduate education, the students as consumers mentality finds expression in a desire to learn, earn, and produce knowledge and opportunities withing the higher education system (Gunn, 2023).

The Need for a Needs Assessments

As universities increasingly adopt a consumer-driven model for higher education and the perception of students as consumers grows, the importance of creating environments that priorities students' needs becomes even more critical. Amid the paradigm shift, conducting a needs assessment provides an opportunity to identity and support the basic psychological needs of students. This aligns with autonomy supportive teaching practices, which emphases student choice, self-paced learning, and meaningful engagement. By understanding the current gaps between these needs and existing

conditions, academic departments can tailor interventions that foster autonomy support environment, leading to improved intrinsic motivation and well-being for students.

Needs assessments are systemic processes to identify and prioritize gaps between current conditions and desired outcomes (Altschuld & Watkins, 2014). Conducting a needs assessment within graduate education, guided by SDT, offers a strategic method to identify and prioritize the basic psychological needs and aspirations for autonomy support of graduate students (Deci & Ryan, 2000; Soriano, 2013). Unlike traditional program evaluation that aims to assess the effectiveness of existing services, needs assessments are proactive and aim to understand and address the needs of students to inform the creation or adaptation of support, particularly in areas related to autonomy, competence, and relatedness (Soriano, 2013).

Needs assessments require a systematic approach utilizing surveys, focus groups or interviews to uncover gaps in services and the support of graduate students (Soriano, 2013). The Kaufman's Organizational Elements Model has been a key element in systemic needs assessment and is a framework with three linked types of needs: gaps in needs at the societal level, organizational level, and the individual level (Altschuld & Watkins, 2014). There is a need for alignment between the discrepancies at the various levels and the processes and inputs that fuel the overall system (Altschuld & Watkins, 2014). Essentially, for a needs assessment to be effective and for interventions to be successful, there must be a congruence between the identified needs at each level and the mechanism or actions (processes and inputs) employed to address the needs.

This model of needs assessment, guided by SDT, is critical for creating environments that foster basic psychological needs which are fundamental elements for enhancing intrinsic motivation and well-being. Taking this approach involves recognizing that the satisfaction of graduate students' basic psychological needs and their perception of autonomy support are not just individual concerns but are deeply influenced by broader organizational and societal contexts. Effective intervention must therefore

be systemic oriented, address discrepancies and aligning processes at all levels to create an academic environment that supports students.

The scope of this study only looks at the context of the educational psychology department's immediate academic environments. Therefore, it concentrates on aligning the specific needs of the EDP graduate students (Individual level) within this department creating a baseline, so that targeted, department level interventions can be created. Recognizing that broader societal and organizational alignments are crucial but fall outside the purview of this focused needs assessment.

Chapter 3: Methods

Conceptual Framework

The conceptual framework of this study is anchored in the epistemological stance of constructionism. Rooted in, "the view that all knowledge, and therefore all meaningful reality as such, is contingent upon human practices, being constructed in and out of interaction between human beings and their world and developed and transmitted within an essentially social context" (Crotty, 1998, p. 46). This perspective argues that the world and objects in the world may be inherently meaningless, yet through engagement with them, meaning is constructed. In this context, individuals actively construct their own knowledge and meaning through their mind, crafting unique views and understandings. Meaning is constructed, not created (Crotty, 1998).

Within this framework, the study also embraces social constructionism, as we are not individuals alone in the world but individuals within society. The world and objects in the world "precede us and in which we are already embedded, and it is only by inhabiting them, or being inhabited by them, that we have access to the public and conventional senses they make" (Fish, 1990, p. 186 cited in Crotty, 1998). According to social constructionism, our understanding of the world is shaped not only by our personal insights, but also by our participation in a broader social context. The interplay between individual constructivism (where meaning is generated internally) and social constructionism (where meaning is constructed through social interaction) underscores the complex process of knowledge construction. While the subjective experiences of individuals play a crucial role, the collective meanings shared within a society or community are equally important.

The integration of Self-Determination Theory (SDT) which seeks to explain how sociocultural conditions support or undermine human engagement and flourishing, and operates under three main assumptions (Reeve, et al., 2018). First, intrinsic activity, which assumes students are naturally prone towards activity, engagement, and learning. It highlights the importance of self-motivation in driving

learning and engagement. Second, organismic framework, which assumes that a nurturing environment is crucial for individual growth. It suggests that when students' needs for autonomy, competence and relatedness are met, they flourish. Conversely, when their needs are undermined, their motivation and well-being may suffer. Third, the person-environment dialect, which assumes an interactive relationship between students and their environment, and the environment offers regulation to internalize (Reeve, et al., 2018).

Applying these conceptual and theoretical underpinnings to this needs assessment, particularly within educational context, offers a more nuanced approach to understanding and interpreting quantitative data that represents the experiences and perceptions of graduate students (Marvasti, 2018). It challenges the notion that numbers are not merely objective data, but are constructed through the actions, decisions, and perceptions of individuals within specific environments. This approach emphasizes how meaning and knowledge can be individually and socially produced, including the construction of numerical data, within the environment, social and personal context in which they are generated.

The study's focus on quantitative scales for basic psychological needs and perceived autonomy support exemplifies this perspective. These scales are not just neutral tools, but measure meanings and constructs reflecting the institutional definitions and classification of student needs and perceptions. Viewing the data as constructed within this context creates opportunities to analyze and explore how the EDP department supports or undermines student engagement and flourishing.

Moreover, acknowledging the constructed nature of quantitative data invites a story telling aspect (Marvasti, 2018). The inclusion of free response answers further enriches this approach, providing insights beyond what the scales alone can offer. Adopting constructivist practices in quantitative research enriches the theoretical framework, facilitating a deeper understanding of the broader social and educational context of the graduate students within the EDP department. This

approach, grounded in the principles of constructionism and self-determination theory, provides a comprehensive lens through which to explore the experiences of the EDP graduate student.

Subjectivity Statement

As I approach the competition of my master's program in educational psychology, I find myself deeply engrossed in the exploration of motivation and the application of self-determination theory in my academic pursuits and overall well-being. This journey is not just academic. It is profoundly personal. My experience in graduate school has ignited a passion for understanding what drives individuals towards learning and the environment necessary to do so. Particularly, I am interested in the environmental factors created by those functioning within it and their ability to fulfill the basic psychological needs of autonomy, competency, and relatedness for themselves and others. My research seeks to uncover the necessary environmental and cognitive factors that guide individuals to join graduate programs, aiming for a Master's or a PhD, and assess the extent of which their basic psychological needs are satisfied or frustrated.

Identifying as a privileged white gay male, I recognize the disparities in accessing autonomy, especially among individuals, confronting systemic barriers related to their minority status, economic challenges, or societal obstacles. My interest lies in understanding how individuals navigate these challenges within the self-determination theory framework. Education has been my pathway to autonomy, means to pursue secular and diverse learning divergent from my family's religious values. This personal context enriches my research, providing a unique lens through which I view my work.

My position as Masters' candidate enriches my research within an intimate understanding of the graduate experience, enabling me to formulate research questions and interpret findings through a lens similar to that of my peers. This closest to my topic and shared experiences, similar frustrations and developing relationship with faculty members offers strengths to my research. This allows me to align my inquiries with the interests of the faculty and the lived realities of graduate students, fostering a

comprehensive understanding of the EDP departments dynamics within the framework of self-determination theory.

However, this proximity to my subject matter also presents potential limitations. It could influence my interpretation of data and my background may limit my full comprehension of the diverse challenges faced by my peers. Recognizing this, I navigate my research with the keen awareness that my position is both an insider and an outsider. This dual perspective prompts a continuous effort towards maintaining objectivity and mitigating potential biases, ensuring my commitment to producing research that is not only reflective of my personal journey, but also inclusive in the representation of the broader graduate student experience.

Methods

Participants

At the time of this study, there were 52 graduate students in the Educational Psychology department. Among them, 72% of the graduate students participated in the study (*n*=37), of which 5 were master's students and 32 were PhD students. The gender distribution of this sample was predominantly female (24), with fewer males (12) and 1 non-binary students. The majority of participants were between the ages of 18-30 (19), with 10 in the 31-40 age range, and 8 aged 41-50. Regarding race and ethnicity, most participants (28) do not identify as historically marginalized (i.e. White or Asian), while 9 participants identified as historically marginalized (i.e. Black, Pacific Islander, Hispanic, Latino, Middle Eastern or Multiracial). The citizenship status was primarily domestic (24) with an international presence of 13. All but 5 participants were enrolled full-time. The enrollment period was relatively evenly spread across three program intake ranges “pre-COVID-19” Spring 2017 to Fall 2020 (11), mid-COVID-19” Spring 2021 to Fall 2022 (13), and “post-COVID-19” Spring 2023 to Spring 2024 (13), suggesting a wide range of program stages among students and their duration in their programs. The majority of students were employed by the University (29), a few by other means (5), and

only 3 were unemployed. Additionally, a portion of the students (9) identified as first-generation status of which neither of their parents have earned a college degree.

The participants were selected using the non-random, purposive sampling technique, of convenience sampling. The only criterion for inclusion was their enrollment status in either a Master's or PhD program majoring in Educational Psychology within the EDP department at a public university in the southwestern United States.

For a needs assessment study aimed specifically at graduate students within the EDP department, convenience sampling is particularly apt for this approach. The core of the needs assessment approach guided by SDT is to understand the needs of graduate students in the EDP department. Convenience sampling directly targets this population, ensuring highly relevant and tailed findings to this group (Novielli, et al., 2023). Convenience sampling is more cost effective and timely as sampling within the department allows for streamlined recruitment and data collection, facilitating quicker turnaround as graduate students may have a vested interest in participating in a study that seeks to assess and address their needs (Novielli, et al., 2023). Novielli, et al., (2023) warns of assumed homogeneity of the sampling when using convenience sampling, however the intention of this study is to apply findings within the educational environment in which the data was collected. Needs assessments require a deep understanding of specific challenges, resources, and needs of the population being studied (Altschuld & Watkins, 2014, Soriano, 2013). Convenience sampling of graduate students in the department ensures that participants have a shared understanding of the context, potentially leading to richer and more nuanced data (Novielli, et al., 2023).

Design

This study employed a descriptive survey design using a needs assessment approach guided by SDT in order to conduct a descriptive, comparative, and thematic analysis. A survey is a method of gathering information that is comprehensively designed to collect data in which the sample being

studied represents the target population and the collected information represents the concept of interest well (Gideon, 2011). This survey takes a web-based modality using the Qualtrics platform, and the collected data is used to conduct various analyses.

First, descriptive analysis to provide a foundational understanding of the survey data by calculating frequencies, means, and standard deviations to summarize the data (Loeb et al. 2017). This is the foundation to the systemic processes of the needs assessments approach to identify gaps between current conditions and desired outcomes guided by SDT (Altschuld & Watkins, 2014; Soriano, 2013). Descriptive analyses are useful in identifying what problems need to be solved, types of interventions that might be needed and are useful as the goal of quantitative description is not deep understanding of personal perspective, but a more general understanding of patterns across a population of interest (Loeb et al. 2017; Siedlecki 2020). Although this study is quantitative study it employs support from qualitative descriptive design as well. This decision supports the understanding of social constructionism mentioned in the theoretical framework of this research. These numbers represent more than objective outcomes, but also the lived experiences of the participants. The qualitative data collected in this study is used to further explain these lived experiences providing a more nuanced understanding of the concepts of interest. Qualitative design allows for more naturalistic perspectives of the concepts of interest, freedom of being constrained to specific theoretical understanding, and flexibility in nuanced understandings in the investigation follows a different path (Kim, et al., 2017).

Second, comparative analysis to identify differences and similarities between groups within the survey data (Porta, 2008). Regression analysis is the foundation for identifying differences between demographic groups in the sample. However, prior to regression, correlations between variables will be examined, as linear relationships are needed to conduct a regression analysis (Howell, 2012). If linear relationships are present, regression analysis will follow exploring the strength and direction of variables specifically looking for differences in demographics of the population (McNulty, 2021). As multiple

regressions are conducted simultaneously the use of the Bonferroni correction is necessary to reduce the chances of obtaining false-positive (type 1 errors) (Armstrong, 2014; Korn & Graubard, 1990).

Third, thematic analysis using the constant comparative method to identify the main themes in the free response section of the survey. The qualitative analysis involved coding the data iteratively, comparing each new data piece with existing codes and themes to refine and explain the analysis (Fram, 2013; Proudfoot, 2023). This method allows for the emergence of themes that are connected to the SDT framework as well as any new themes that may arise, providing nuanced insights into the needs of the participants. To enhance trustworthiness of the thematic analysis findings, member checking was conducted. This involves sharing the initial findings with participants to validate the interpretations, ensuring this analysis accurately reflects their perspectives (Motulsky, 2021).

Materials

The descriptive survey was created in Qualtrics consisting of two likert scale questionnaires consisting of 34 items and 4 opened questions. The first scale is the Basic Psychological Needs Satisfaction and Frustration Scale (BPNSFS)(Van der Kaap-Deeder, et al., 2020). This scale is designed to measure the satisfaction and frustration of the three basic psychological needs as identified by SDT: autonomy, competency, and relatedness (Sakan, 2022). The BPNSFS is composed of six subscales with four items each (total score possible per subscale is 20) corresponding to the satisfaction and frustration of the three needs as well as two subscales with nine items each corresponding to total needs satisfaction and total needs frustration (total score possible per subscale is 60) (Van der Kaap-Deeder, et al., 2020). Respondents rate items on a scale ranging from 1 “Not true at all” to 5 “Completely true”, providing a measure of each and total needs satisfaction and frustration. The scale has been validated across different cultures, ages, and settings, supporting its utility in assessing basic psychological needs across diverse populations (Chen, 2015; Sakan, 2022; Van der Kaap-Deeder, et al., 2020). The second scale is the Autonomy Support Questionnaire (ASQ) (Legate, et al., 2012). This scale is designed to

measure the degree of autonomy support perceived by an individual within a particular context (Legate, et al., 2012). The ASQ is composed of 1 scale with 10 items where respondents rate items on a scale ranging from 1 “Not at all true” to 7 “Very true”, providing a one measure of perceived autonomy support (total score possible for scale is 70). These statements explore themes of acceptance, understanding, encouragement to express true emotions and provision of choices and options from department faculty (Legate, et al., 2012).

The open-ended questions for graduate students were created to answer research question 3, consisting of four questions: 1. Aside from financial considerations, what kind of experiences or opportunities do you seek during your graduate studies? 2. In what areas or aspects of your graduate school experience do you believe more autonomy would be beneficial? 3. What aspects of your degree program have been particularly frustrating? 4. How can the department provide better support to address these frustrations? The member checking survey was created using Qualtrics asking participants to review the results of the thematic analysis and answer an agree or disagree question, for each result for the above questions respectively.

Procedure

Following the receipt of Institutional Review Board (IRB) approval, the participant recruitment phase was initiated. Recruitment efforts were conducted through the department’s listserv, in-person recruitment speech in the graduate student courses, and flyers posted on the EDP departments floor of the College of Education.

The data collection phase of the study spanned from January 10th, 2024, to February 9th, 2024. During this period, a variety of data was gathered, utilizing a Qualtrics survey detailed in Appendix A. These methods were designed to ensure the collection of both quantitative and qualitative data.

Immediately following data collection, the analysis phase commenced on February 10th, 2024, and concluded on March 20th, 2024. This phase comprised both quantitative and qualitative analytical

approaches. The quantitative analysis was conducted with the statistical software RStudio to identify basic descriptives of the measured scales. A correlation was conducted to check for linear correlation, an assumption necessary to conduct linear regression. The comparison analysis was conducted using the scale measures as dependent variables and graduate student demographics and independent variables. Regression was used for explanatory purposes to conduct the comparative analysis between demographic groups.

The qualitative analysis was conducted with the qualitative analysis software MAXQDA, aiming to conduct a thematic analysis using the constant comparative method of short open-ended responses. To validate the findings of the qualitative thematic analysis, a process of member checking was employed from March 25th, 2024, to March 28th, 2024, in addition to informal conversations with graduate students from the EDP department. This portion of data analysis sought participants' agreement or disagreement with the identified themes, serving as a means of verifying the accuracy of the thematic analysis. This step was crucial for enhancing the trustworthiness of the qualitative findings. This combination of analyses allowed for a nuanced understanding of the research questions and the study’s aims.

Chapter 4: Results

This study was conducted to explore the intricacies and needs of autonomy, competency, and relatedness within the realm of educational psychology graduate students. Anchored in constructionism and self-determination, this needs assessment approach illuminates the extent to which the EDP department fulfills the basic psychological needs and provides a sense of autonomy for its graduate students. Utilizing the Basic Psychological Needs Satisfaction and Frustration Scale (Van der Kaap-Deeder, et al., 2020), the Perceived Autonomy Support Questionnaire (Legate, et al., 2012), and response questions, I embarked on a quantitative expedition to illuminate the nuanced dynamics between the graduate students and their basic psychological needs.

My aims were multi-faceted: to quantitatively delineate the satisfaction and potential gaps in the fulfillment of students' BPN; to assess the perceived autonomy support from faculty; to uncover any disparities that may exist across different student demographics; and to pinpoint actionable areas for improvement through an analysis of open-ended student feedback. It was my aim to not only chart the current state of these psychological needs but to also contribute to the ongoing dialogue on enhancing educational practices within the EDP department, thus fostering a more nurturing and empowering environment for graduate students.

Aim 1 Results: Basic Psychological Needs Satisfaction and Frustrations Scale

Aim 1 of this study was to quantitatively describe and analyze the extent to which basic psychological needs of the graduate students in the EDP department are being met using the Basic Psychological Needs Satisfaction and Frustration Scale to answers the first research question, “To what extent are the EDP Graduate students Basic Psychological Needs being met?” (Van der Kaap-Deeder, et al., 2020).

Needs Satisfaction

The average total satisfaction score across all participants (*n*=37) was 47.78 of 60 (*SD* = 6.84), indicating a high level of total satisfaction with how the EDP department meets the basic psychological needs of its graduate students (Table 1). Participants were categorized into three levels of total satisfaction based on their total satisfaction score: low (0-20), medium (21-40), and high (41-60). This categorization helps in understanding the overall needs-satisfaction of students in the department. The analysis revealed that none (0%) of the participants fell into the low satisfaction category, 6 (16%) individuals reported medium level, and 31 (84%) of 37 reported high satisfaction levels. Note that the subscales for each basic psychological need satisfaction range from 0 to 20.

Further, breaking down these scores, average satisfaction score per need across all participants shows moderate to high levels of satisfaction for autonomy (*M*= 15.35, *SD* = 2.69), competency (*M*= 15.81, *SD* = 2.81), and relatedness (*M*= 16.62, *SD* = 3.38). This indicates that on average, the graduate students feel their basic psychological needs are being met reasonably well within the domains of self-governance, ability to use their knowledge, and connectedness to other students in the department.

The satisfaction scores also reveal some difference across demographic groups. For instance, students enrolled in the Master's program report a lower average satisfaction score (*M* = 44.8, *SD* = 5.22) compared to PhD students (*M* = 48.2, *SD* = 7.01), suggesting that while the basic psychological needs are generally being met, there may be aspects of the Master's program that can be improved. Looking into the three needs that comprise this total satisfaction score further, Master's students have a relatively lower relatedness score (*M* = 13.6, *SD* = 5.32) compared to PhD students (*M* = 16.6, *SD* = 3.32).

Employment status may also play a crucial role in influencing needs satisfaction among EDP graduate students. Students working within the university reported slightly lower satisfaction scores (*M* = 47.6, *SD* = 6.04) compared to those employed outside of the university (*M* = 53.4, *SD* = 8.38),

suggesting that external employment may provide experiences or contexts that contribute positively to needs fulfillment. Students who are unemployed reported a lower total satisfaction score (*M* = 40, *SD* = 4.36) compared to all others who are employed in some capacity. Autonomy (*M* = 12.3, *SD* = 3.06) and relatedness (*M* = 12.7, *SD* = 1.53) satisfaction seem to be the largest contributor to this difference.

Needs Frustration

The average total frustration score across all participants is 27.32 (*SD* = 7.81), indicating a moderate level of total frustration with how the EDP department supports student ability to meet their basic psychological needs (Table 2). Participants were categorized into three levels of frustration based on their total frustration score: low (0-20), medium (21-40), and high (41-60). This categorization helps in understanding the overall needs-frustrations of students in the department. The analysis revealed that 8 (22%) of the participants fell into the low frustration category, 28 (76%) individuals reported medium level, and 1 (2%) of 37 reported high frustration levels. Note that the subscales for each basic psychological need frustration range from 0 to 20.

Further breaking down these scores, average frustration score per need across all participants shows low to moderate levels of frustration for autonomy (*M*= 11.03, *SD* = 3.48), competency (*M*= 8.81, *SD* = 3.2), and relatedness (*M*= 7.49, *SD* = 3.25). This suggests that there are areas within the EDP department where the fulfillment of basic psychological needs could be improved.

The frustration scores also reveal some difference across demographic groups. For instance, first-generation students showed frustration scores (*M*= 28.3, *SD* = 7.11) that are higher than their non-first-generation counterparts (*M*= 26.7, *SD* = 8.43). First-generation students have a higher level of frustration in both autonomy (*M*= 12, *SD* = 3.16) and competency (*M*= 9.78, *SD* = 2.99). This difference points to potential systematic or structural barriers that uniquely impact first-generation students.

Additionally, international students also showed slightly higher frustration scores (*M*= 28.5, *SD* = 6.67) compared to domestic students (*M*= 26.7, *SD* = 8.43).

Table 1

Basic Psychological Needs Satisfactions

Characteristic	Total	Total BPN Satisfaction				Autonomy Satisfaction				Competence Satisfaction				Relatedness Satisfaction			
	n	*M*	*SD*	Min	Max	*M*	*SD*	Min	Max	*M*	*SD*	Min	Max	*M*	*SD*	Min	Max
Total	37	47.78	6.84	31	59	15.35	2.69	8	20	15.81	2.81	10	20	16.62	3.38	7	20
Gender																	
Male	12	47.8	7.77	37	59	15.2	3.24	9	20	16.5	2.68	11	20	16.2	4.28	7	20
Female	24	48.1	6.39	31	58	15.5	3.24	9	20	15.5	2.9	10	20	17	2.8	10	20
Non-Binary	1	39	NA	NA	NA	13	NA	NA	NA	14	NA	NA	NA	12	NA	NA	NA
Age Range																	
18-30	19	47.6	4.95	40	58	15.8	1.89	13	20	15.5	2.76	10	19	16.2	3.26	7	20
31-40	10	48	9.03	31	59	14.8	3.71	8	19	16	2.94	13	20	17.2	3.74	10	20
41-50	8	48	8.5	38	58	14.9	3	11	20	16.2	3.06	11	20	16.9	3.52	12	20
Race/Ethnicity																	
Not HMC	28	47.9	6.84	31	59	15.4	2.72	8	20	16	2.89	10	10	16.6	3.62	7	20
HMC	9	47.3	7.21	38	58	15.3	2.74	11	20	15.3	2.65	11	8	16.7	2.65	13	20
Citizenship																	
Domestic	24	48.3	7.2	31	59	15.5	2.77	8	20	16.2	2.84	10	20	16.7	3.77	7	20
International	13	46.8	6.25	37	56	15.1	2.63	9	19	15.2	2.73	11	19	16.5	2.63	13	20
Program																	
Master's	5	44.8	5.22	39	53	15.2	1.79	13	17	16	2.55	13	19	13.6	5.32	7	20
PhD	32	48.2	7.01	31	59	15.4	2.83	8	20	15.8	2.88	10	20	16.6	3.32	10	20
Enrollment																	
Full-Time	32	47.6	6.39	32	58	15.3	2.54	8	20	15.8	2.86	10	20	16.6	3.32	7	20
Part-Time	5	49	20.2	38	59	15.8	3.83	11	20	16.2	2.86	14	20	17	4.12	12	20
Starting Semester																	
Sp 2017- Fa 2020	11	48.3	8.44	31	59	15.5	3.86	8	20	16.3	2.28	13	20	16.5	3.42	10	20
Sp 2021- Fa 2022	13	48.6	6.19	40	58	16.2	2.09	13	20	15.2	3.09	10	19	17.2	3.51	7	20
Sp 2023- Sp 2024	13	46.5	6.32	38	57	14.4	1.76	11	17	16	3.03	11	20	16.2	3.41	11	20
Employment																	
By University	29	47.6	6.04	31	57	15.4	2.29	8	19	15.5	2.63	10	20	16.8	3.26	7	20
By Other	5	53.4	8.38	39	59	17	3.67	13	20	18.2	2.49	14	20	18.2	3.49	12	20
Unemployed	3	40	4.36	37	45	12.3	3.06	9	15	15	4	11	19	12.7	1.53	11	14
FirstGen																	
Yes	9	45.6	8.28	31	28	14.7	3.08	8	19	15.1	2.76	11	20	15.8	3.19	10	20
No	28	48.5	31	37	58	15.6	2.57	9	20	16	2.83	10	20	16.9	3.45	7	20

Table 2

Basic Psychological Needs Frustrations

Characteristic	Total	Total BPN Frustration				Autonomy Frustration				Competence Frustration				Relatedness Frustration			
	n	*M*	*SD*	Min	Max	*M*	*SD*	Min	Max	*M*	*SD*	Min	Max	*M*	*SD*	Min	Max
Total	37	27.32	7.81	12	45	11.03	3.48	4	18	8.81	3.2	4	15	7.49	3.25	4	15
Gender																	
Male	12	26.2	8.21	13	38	10.5	3.55	4	16	8.33	3.45	4	15	7.42	3.53	4	15
Female	24	27.5	7.66	12	45	11.2	3.55	4	18	8.88	3.08	4	15	24	7.38	4	14
Non-Binary	1	37	NA	NA	NA	13	NA	NA	NA	13	NA	NA	NA	11	NA	NA	NA
Age Range																	
18-30	19	28.8	7.6	13	45	11.1	3.22	4	17	9.37	3.3	5	15	8.42	3.5	4	15
31-40	10	25.7	8.78	12	40	11.1	4.23	4	18	8.1	3.51	4	14	6.5	3.1	4	14
41-50	8	25.8	7.3	16	37	10.9	3.56	6	16	8.38	2.67	5	13	6.5	2.33	4	11
Race/Ethnicity																	
Not HMC	28	27.1	8.14	12	45	10.9	3.54	4	18	8.57	3.32	4	15	7.64	3.52	4	15
HMC	9	27.9	7.11	13	38	11.3	3.21	5	17	9.56	2.88	5	15	7	2.29	4	11
Citizenship																	
Domestic	24	26.7	8.43	12	45	11	3.69	4	18	8.33	3.56	4	15	7.38	3.56	4	15
International	13	28.5	6.67	14	36	11.2	3.21	5	17	9.69	2.29	5	13	7.69	2.69	4	12
Program																	
Master's	5	30.2	5.02	23	37	12	2.45	9	15	8.8	3.35	5	13	9.4	4.72	4	15
PhD	32	26.9	8.13	12	45	10.9	3.63	4	18	8.81	3.24	4	15	7.19	2.95	4	14
Enrollment																	
Full-Time	32	27.5	7.69	12	45	11	3.49	4	18	8.91	3.18	4	15	7.62	3.32	4	15
Part-Time	5	26	9.43	17	37	11.2	3.83	6	16	8.2	3.7	4	13	6.6	2.88	4	11
Starting Semester																	
Sp 2017- Fa 2020	11	28.2	7.24	17	40	11.3	3.23	6	18	9.27	3.07	4	14	7.64	3.38	4	15
Sp 2021- Fa 2022	13	25.7	8.24	13	45	9.85	3.24	4	17	3.44	3.44	4	15	7.69	3.59	4	15
Sp 2023- Sp 2024	13	28.2	8.2	12	38	12	3.83	4	17	3.23	3.23	4	15	7.15	3	4	12
Employment																	
By University	29	28	7.59	12	45	11.4	3.42	4	18	9	3.23	4	15	7.62	3.28	4	15
By Other	5	21.8	9.36	13	37	9.2	4.32	4	14	7	3.54	4	13	5.6	3.05	4	11
Unemployed	3	29.7	5.13	24	34	10.3	2.52	8	13	10	1.73	9	12	9.33	2.52	4	12
FirstGen																	
Yes	9	28.3	7.11	17	40	12	3.16	8	18	9.78	2.99	4	15	7.46	3.32	4	15
No	28	27	8.12	12	45	10.7	3.58	4	17	8.82	3.32	4	15	7.56	3.21	4	15

Aim 2 Results: Perceived Autonomy Support Questionnaire

Aim 2 of this study was to quantitatively describe and analyze the extent to which graduate students in the Educational Psychology (EDP) department feel that their autonomy is supported by their

faculty using the Perceived Autonomy Support Questionnaire to answer the second research question, "To what extent do the EDP Graduate students feel that their autonomy is supported by their faculty?" (Legate, et al., 2012).

The average Perceived Autonomy Support (PAS) score for all EDP graduate students (*n*=37) is 57.79 (*SD* = 10.87), on a scale ranging from 7 to 70 (Table 3). Participants were categorized into three levels of frustration based on their total frustration score: low (7-23), medium (24-46), and high (47-70). This categorization helps in understanding the overall needs-frustrations of students in the department. The analysis revealed that 0 (0%) of the participants fell into the low frustration category, 5 (14%) individuals reported medium level, and 32 (86%) of 37 reported high levels of PAS.

The PAS scores also reveal some differences, but also strengths across demographic groups. For instance, students employed by the university have a PAS score of 57.5 (*SD* = 11), while those employed elsewhere report a slightly higher score (*M* = 60.8, *SD* = 12.8), potentially reflecting different experiences or pressures that might influence their perception of autonomy support as they enter a working relationship in addition to the traditional mentorship relationship

Table 3

Perceived Autonomy Support

Characteristic	Total	Total Perceived Autonomy Support			
	n	*M*	*SD*	Min	Max
Total	37	57.76	10.87	31	70
Gender					
Male	12	60	8.99	48	70
Female	24	56.8	11.9	31	70
Non-Binary	1	53	NA	NA	NA
Age Range					
18-30	19	57.1	10.6	31	70
31-40	10	57.7	12.4	34	70
41-50	8	59.4	10.8	42	70
Race/Ethnicity					
Not HMC	28	56.6	11.4	31	70
HMC	9	61.3	8.44	51	70
Citizenship					
Domestic	24	56.9	12.1	31	70
International	13	59.3	8.25	45	70
Program					
Master's	5	57.4	7.57	52	70
PhD	32	57.8	11.4	31	70
Enrollment					
Full-Time	32	56.9	12.1	31	70
Part-Time	5	58.3	8.25	45	70
Starting Semester					
Sp 2017- Fa 2020	11	60	11.1	34	70
Sp 2021- Fa 2022	13	55.7	12	31	70
Sp 2023- Sp 2024	13	57.9	10	42	70
Employment					
By University	29	57.5	11	31	70
By Other	5	60.8	12.8	42	70
Unemployed	3	55.3	8.74	48	65
FirstGen					
Yes	9	60	11.6	34	70
No	28	57	10.7	31	70

with their department faculty. As for strengths within the department's ability to support student autonomy, both Master's (M = 57.4, SD = 7.57) and PhD (M = 57.8, SD = 11.4) students reported similar levels of PAS, suggesting that efforts to fosters autonomy are consistently applied across different levels of graduate study. Students from historically marginalized communities (HMC) reported higher average PAS scores (M = 61.3, SD = 8.44) compared to non-HMC students (M = 59.3, SD = 8.25), as did international students (M = 60.8, SD = 12.8) compared to domestic students (M = 56.9, SD = 12.1). This suggests that faculty efforts to support autonomy may be particularly effective for students from marginalized and international backgrounds.

Aim 3 Results: Comparative Analysis

For aim 3, the comparative analysis was to identify any inequities in the department's ability to meet the basic psychological needs of its students' demographic differences. This analysis is crucial for understanding how well the EDP department supports its diverse student body and where improvements can be made to ensure equitable support among its graduate students.

Correlation Results

The correlation results provide an overview of the relationships between PAS and various measures of the BPNSFS (Table 4). Notably, there is a strong positive correlation between PAS and basic psychological needs satisfaction (r = .61, p < .001), indicating that higher perceived autonomy support is associated with higher needs satisfaction. Significant negative correlations also exist between PAS and needs frustrations (r = -.61, p < .001), suggesting that students who perceive greater autonomy support tend to experience lower needs frustration. These results are also consistent with prior literature (Vansteenkiste, et al., 2023). These linear relationships also meet the assumption necessary to conduct regression analysis.

Table 4

Means, standard deviations and correlations for BPNSFS and PASQ

Variable	*n*	*M*	*SD*	1	2	3	4	5	6	7	8	9
1. PAS	37	57.76	10.87	—								
2. AS	37	15.35	2.69	.53***	—							
3. RS	37	16.62	3.38	.42**	.50***	—						
4. CS	37	15.81	2.81	.48**	.41*	.26	—					
5. BPNS	37	47.78	6.84	.61***	.81***	.80***	.70***	—				
6. AF	37	11.03	3.48	-.63***	-.46**	-.37*	-.43**	-.54***	—			
7. RF	37	7.49	3.25	-.47**	-.37*	-.78***	-.26	-.64***	.36*	—		
8. CF	37	8.81	3.2	-.34*	-.35*	-.28	-.63***	-.54***	.47**	.46**	—	
9. BPNF	37	27.32	7.81	-.61***	-.50***	-.60***	-.56***	-.73***	.79***	.76***	.81**	—

Note. *M* and *SD* are used to represent mean and standard deviation, respectively. BPNSFS = Basic Psychological Needs Satisfaction and Frustration Scale, PASQ = Perceived Autonomy Support Questionaire, PAS = Perceived Autonomy Support, AS = Autonomy Satisfaction, RS = Relatedness Satisfaction, CS = Competence Satisfaction, BPNS = Total Basic Psychological Needs Satisfaction, AF = Autonomy Frustration, RF = Relatedness Frustration, CF = Competence Frustration, BPNF = Total Basic Psychological Needs Frustration. * $p < 0.05$, ** $p < .01$, *** $p < .001$

Regression Results

The regression analysis explores the impact of various demographics on PAS, total needs satisfaction, frustration, and each of their three subscales for autonomy, competency, and relatedness respectively (Table 5). Regression's explanatory ability is the focus of this analysis, as the regression models can account for variation in outcomes of PAS, needs satisfaction and frustration among the various demographic variables. Noteworthy findings include the limited impact of demographic outcomes of PAS and basic psychological needs. It is noteworthy to mention that for the regression analysis the non-binary individuals were grouped with the female category for the comparative analysis, permission from that individual given. Across various outcomes, demographic variables such as gender, age range, historical minority status, citizenship, program type, enrollment status, starting semester, and employment status showed no statistical significance in predicting variations in PAS, needs satisfaction or frustration when adjusting alpha with the Bonferroni correction. This suggests that demographic factors alone may not have a strong or direct influence on how students perceive autonomy support or experience satisfaction and frustration of their psychological needs within the EDP

department. The explanatory power (R^2) of the models were all low ranging from .16 to .32 indicating that the demographic variables accounted for a small portion of the variance in the outcomes. There are likely other unmeasured factors that play a critical role in influencing PAS and basic psychological needs.

Table 5

Comparative Analysis: Perceived Autonomy Support, Needs Satisfaction and Frustration by Demographics

	PAS	BPNS	AS	CS	RS	BPNF	AF	CF	RF
Predictor	*B*	*B*	*B*	*B*	*B*	*B*	*B*	*B*	*B*
Intercept	59.83 (*p* < .001)	43.04 (*p* < .001)	14.61 (*p* < .001)	14.18 (*p* < .001)	14.23 (*p* < .001)	29.44 (*p* < .001)	11.76 (*p* < .001)	9.68 (*p* < .001)	8.01 (*p* < .001)
Female	3.14 (*p* = .32)	1.30 (*p* = .46)	-.06 (*p* = .94)	1.36 (*p* = .06)	-.001 (*p* = .99)	-1.97 (*p* = .36)	-.58 (*p* = .54)	-1.20 (*p* = .17)	-.19 (*p* = .82)
Age: 31-40	-1.65 (*p* = .64)	-.09 (*p* = .96)	.57 (*p* = .48)	-.40 (*p* = .62)	-.27 (*p* = .79)	2.80 (*p* = .25)	.32 (*p* = .76)	1.47 (*p* = .14)	1.00 (*p* = .32)
Age: 41-50	-.84 (*p* = .831)	-.79 (*p* = .72)	-.30 (*p* = .75)	-.80 (*p* = .40)	.30 (*p* = 79)	-.26 (*p* = .92)	.42 (*p* = .72)	.15 (*p* = .90)	-.83 (*p* = .47)
HMC	-1.03 (*p* = .77)	1.15 (*p* = .56)	.06 (*p* = 94)	.98 (*p* = .23)	.12 (*p* = .91)	-1.76 (*p* = .46)	-.47 (*p* = .65)	-1.58 (*p* = .11)	.29 (*p* = .77)
International	-2.93 (*p* = .24)	.42 (*p* = .76)	0.09 (*p* = .87)	.36 (*p* = .52)	-.03 (*p* = .96)	-.43 (*p* = .80)	-.28 (*p* = .71)	-.40 (*p* = .56)	.24 (*p* = .73)
Master's	-1.58 (*p* = .67)	1.94 (*p* = .46)	-.04 (*p* = .96)	.17 (*p* = .84)	1.80 (*p* = .09)	-1.40 (*p* = .58)	-.68 (*p* = .54)	.27 (*p* = .79)	-.99 (*p* = .35)
Part-Time	1.99 (*p* = .63)	2.51 (*p* = .30)	.31 (*p* = .74)	1.78 (*p* = .07)	.41 (*p* = .73)	-2.77 (*p* = .34)	-1.25 (*p* = .34)	-1.30 (*p* = .27)	-.23 (*p* = .84)
Sp 2021- Fa 2022	2.24 (*p* = .51)	.87 (*p* = .65)	.34 (*p* = .66)	.91 (*p* = .25)	-.38 (*p* = .69)	1.24 (*p* = .60)	.05 (*p* = .96)	.51 (*p* = .59)	.68 (*p* = .49)
Sp 2023- Sp 2024	-2.52 (*p* = .44)	-.16 (*p* = .93)	.51 (*p* = .50)	-.81 (*p* = .30)	.14 (*p* = .88)	-2.46 (*p* = .28)	-1.30 (*p* = .20)	-1.23 (*p* = .18)	0.07 (*p* = .94)
Employed by Other	1.65 (*p* = .70)	0.31 (*p* = .90)	-.01 (*p* = .98)	-.06 (*p* = .95)	.40 (*p* = 74)	1.19 (*p* = .70)	1.55 (*p* = .24)	-.43 (*p* = .71)	.08 (*p* = .95)
Unemployed	5.79 (*p* = .30)	.31 (*p* = .02)	2.30 (*p* = .08)	2.74 (*p* = .04)	2.57 (*p* = .11)	-5.71 (*p* = .14)	-1.53 (*p* = 37)	-2.04 (*p* = .19)	-2.14 (*p* = .19)
Yes First Gen	-1.36 (*p* = .64)	1.43 (*p* = .40)	.41 (*p* = .55)	.35 (*p* = .61)	.67 (*p* = .42)	-.03 (*p* = .98)	-.63 (*p* = .48)	.74 (*p* = .36)	-.14 (*p* = .87)
F(12,24)	.39	.89	.72	.92	.86	.60	.59	.71	.56
p	.96	.57	.72	.54	.60	.83	.83	.72	.85
R^2	.16	.30	.27	.32	.30	.23	.23	.26	.21
ΔR^2	-.26	-.04	-.10	-.03	-.05	-.16	-.16	-.10	-.17
SEE	12.19	6.96	2.82	2.84	3.46	8.42	3.75	3.37	3.52

Note. PAS = Perceived Autonomy Support, AS = Autonomy Satisfaction, RS = Relatedness Satisfaction, CS = Competence Satisfaction, BPNS = Total Basic Psychological Needs Satisfaction, AF = Autonomy Frustration, RF = Relatedness Frustration, CF = Competence Frustration, BPNF = Total Basic Psychological Needs Frustration. All VIFs were within acceptable ranges.
Alpha = .05/9 = .0056 * p < .005, ** p < .001

Aim 4 Results: Qualitative Findings

Aim 4 of this study was to identify areas for improvement based on quantitative findings of the open-ended responses from EDP graduate students. This aim answers part of the third research question "*How can the EDP department enhance support for graduate students in fulfilling their BPN?*" Students were given 4 open-ended response questions to answer the research question, the first three of which address this aim.

Opportunities and Experiences

Question 1: Aside from financial considerations, what kind of experiences or opportunities do you seek during your graduate studies? Answer 1: Aside from financial considerations, the Graduate Students of the Department of Educational Psychology seek more opportunities and experience for comprehensive growth by learning through experiences in research, teaching, and community engagement for career readiness (Table 6).

The Need for More Autonomy

Question 2: In what areas or aspects of your graduate school experience do you believe more autonomy would be beneficial? Answer 2: The Graduate Students of the Department of Educational Psychology seek more autonomy in research pathways, academic choices, personal and professional growth, community building, and career preparation (Table 7).

Sources of Frustration

Question 3. What aspects of your degree program have been particularly frustrating? Answer 3: The Graduate Students of the Department of Educational Psychology face frustrations with institution setup, unclear department structures, too much autonomy, practice-scholarship disconnect, and funding issues (Table 8).

Table 6

Opportunities and Experiences wanted by EDP Graduate Students

Opportunities and Experiences	Example Quote
Hands-on research experience	
Research mentorship and collaboration through direct engagement in research labs and research projects that are facility and graduate student led to gain practical skills, understanding, and opportunities to offer new ideas.	"I seek mentorship from other graduate students as well as research opportunities from the labs that may be aligned with what I want to research."
Direct engagement with local districts, schools, communities, and culture.	"Opportunities to familiarize with the local culture and people."
Research assistant (RA), internship, and fellowship opportunities.	"I seek TA and RA opportunities and want to engage in some research group."
Grant writing, paper publication, networking and attending conferences.	"Academic support groups for courses, writing aid, and grant/funding."
	"I would like to understand how to conduct research and be able to discuss my findings. As well as participate in conferences as a speaker to discuss my research.
Hands-on teaching experience	
Teaching assistant (TA) opportunities	"I have been very fortunate to have the experience of being both a TA and an RA during my graduate studies in Educational Psychology."
Non-TA teaching opportunities such as guest lecturing or curriculum development	"I have also been asked to be a guest lecturer within the department."
Gaining a deeper understanding of pedagogy and enhancing teaching skills	"I seek to gain a deeper understanding of pedagogy and what is best for students' learning."
Holistic opportunities that encompass personal growth, professional advancement and the creation of a robust foundation for future career endeavors within and outside of academia	
Practical knowledge gained through courses covering intriguing topics and content that are not research and statistics based	"Courses that cover interesting topics."
Presenting or participating in conferences, colloquium talks, and workshops	"Fellowships, opportunities to publish, internships, and attending conferences."
Professional networking and exposure facilitated by fellow graduate students, mentors and advisors, community connections.	"Research opportunities, networking."

Table 7

Areas More Autonomy Would be Beneficial for EDP Graduate Students

Area	Example Quote
Research and academic choices	
The ability to choose research labs that align with their personal and career interests	"The ability to choose research labs that align with their personal and career interests" "Choosing research labs. More research projects need to be available for students to participate in."
More flexibility in managing their schedules for a balanced work-life approach	"Autonomy in managing my time and schedule would be better for me to facilitate a better work-life balance."
More courses that resonate with their academic pursuits	"I think that would be the classes that we have to take. I sometimes feel like there are very less electives and a lot of core courses that sometimes makes me feel restricted in terms of what I'm studying. I wish we had more choice in that regard."
Autonomy support for personal growth, professional advancement and the creation of a robust foundation for future career endeavors	
Engaging in academic support groups for reading and writing	"Engaging in academic support groups for reading and writing":
More advisor support in career preparations	"I also know that I am supported by the faculty and my colleagues when I need some guidance." "In general, having autonomy over my career goals is extremely important as well as the type of research I am conducting.

Table 8

Aspects of Degree Programs that are Frustrating to EDP Graduate Students

Aspects of Frustration
Institutional System
Navigating entry requirements of administration outside of the department and then getting set up without direction in areas like university email, D2L orientation, course registration, and university deadlines
Department Structures
Orientation
One orientation per year, leaving students entering in the Spring with less guidance
English language support for international students
Research labs available for students to participate in
Competency and knowledge
Contradictory or inconsistent guidance, lack of clear resources and standard practice offered by faculty in terms of: degree requirements, comprehensive exams, choosing and completing a minor, grad path requirements, thesis and dissertations creation and expectations, and the IRB process
Personal academic projects
Project proposal timelines
Committee formation and collaboration expectations
IRB Process
Expectations and process of submitting papers for conferences and publications
Course materials being deleted or becoming inaccessible after the semester ends
Limited courses covering intriguing topics and content that are not research and statistics based (specifically course offerings at the 600+ level)
Relatedness and community
Limited department-sponsored social events
Limited peer connections and support systems, especially for off-campus or older students
Lack of interdisciplinary work environment with other departments and fields
Too much autonomy
Excessive autonomy can lead to lack of structure, accountability, and confusion
The pandemic has impacted motivation, progress, and feelings of support
Disconnect between scholarship and actual practice
Funding
Imbalance between workload expectations and compensation
Unstable funding and inadequate funding for all admitted students

Aim 5 Results: Qualitative Findings

Aim 5 of this study was to inform educational practice of the EDP department to enhance perceived autonomy support and basic psychological needs of the graduate students. This aim answers part of the third research question "*How can the EDP department enhance support for graduate students in fulfilling their BPN?"* Students were given 4 open-ended response questions to answer the research question, the last of which address this aim.

Ways to Decrease Frustration

Question 4: How can the department provide better support to address these frustrations? Answer 4: The Graduate Students of the Department of Educational Psychology feel that their frustrations could be decreased by improving graduation guidance, department and community interactions, research access, course structures and increased financial support (Table 9).

Integration of Quantitative and Qualitative Findings

In the preceding sections, I examined the distinct quantitative and qualitative findings concerning their basic psychological needs. In this section I explored how the qualitative insights complement and provide deeper context to the quantitative findings, highlighting some differences and similarities of the demographic groups. None of demographic groups had statistically significant or large differences, however further exploration of the qualitative responses from different groups provided a more nuanced understanding of the quantitative results.

Both Master's and PhD students demonstrated a strong need for autonomy, competence, and relatedness, but the intensity and focus of these needs differed between the two groups. Master's students expressed a desire for broader educational experiences and more support in navigating foundational courses, reflecting their need for competence and a supportive learning environment. They also seek greater choice in course selection, highlighting their need for autonomy in shaping their educational journey. In contrast, PhD students often emphasize the need for deeper, specialized

research opportunities and professional development, which aligns with a higher demand for competence in specific areas. They also express a strong desire for more effective mentorship and community engagement, which corresponds to their need for relatedness. Both groups share frustrations related to administrative hurdles and rigid academic structures, which can impede their sense of autonomy and competence.

Table 9

Aspects that may Decrease Frustration from the Perspectives of the EDP Graduate Students

Aspects that may Decrease Frustration
Competency and Academic Guidance Support
Streamline graduation requirements with checklists and clear resources in which all faculty use and are knowledgeable of
More advisor check-in, goal setting, and follow through
Provide more orientations, training, support for comprehensive exams, project proposals, qualitative data analysis, and institutional processes
Relatedness and Community Support
Foster in-personal interactions, socialization, and support for international students
Encourage diverse approaches to scholarship, assess student frustrations regularly, and host department sponsored mixers and events
Research Enhancement
Improve access to department labs
Offer workshops on academic writings such as: grants, MA report and thesis, and PhD dissertation
Facilitate collaborations with other departments, local schools and community agencies
Clearer guidelines and practice on IRB processes and conference/journal submissions
Course Options, Structure, and Accessibility
Restructure courses to better meet student needs and learning abilities
Offering a broader range of EDP courses
Improve resources for statistical courses
Financial Support
Increase overall funding opportunities, support for funding and grant applications, and provide additional financial aid

Students employed by the university, those employed elsewhere, and unemployed students expressed a fundamental need for autonomy, competence, and relatedness, but their experiences and challenges varied. University-employed students often had more structured academic environments but desire greater flexibility in research and teaching opportunities to enhance their learning and professional growth. Those employed outside the university struggled with balancing demanding schedules and seek more asynchronous options and administrative support to better manage their roles as students and professionals. Unemployed students faced significant challenges in funding and access to job opportunities, emphasizing the need for enhanced support in these areas to improve their academic journey and future career prospects. Across all groups, there was a strong desire for greater support and guidance to navigate their programs effectively, highlighting the need for a more responsive educational environment that aligns with their varied life circumstances and career goals.

Domestic and international students also shared basic psychological needs for autonomy, competence, and relatedness, albeit manifested through distinct challenges and experiences shaped by their backgrounds. International students struggled with specific hurdles such as navigating new academic cultures and language barriers, which heightened their need for structured academic support and language learning opportunities to foster competence. They also expressed a desire for greater integration into the local community, highlighting the importance of relatedness in their transition. Both international and domestic students valued autonomy in their academic choices, yet they emphasized the need for more flexible course options and clearer administrative guidelines to effectively manage their studies and professional commitments. Moreover, both groups called for increased proactive support systems that can enhance their autonomy, such as improved advising and more accessible resources to connect academic theory with practical application. While both student groups faced unique and shared challenges, their experiences underscored a universal need for educational

environments that are adaptable, supportive, and inclusive, catering to their diverse personal and academic needs.

Students who identified as International, first generation or a part of a historically moralized community had higher levels of perceived autonomy support compared to their counterparts. This finding may reflect the effectiveness of autonomy supportive practices by the department faculty in meeting the need for autonomy of these students. Such environments are crucial for nurturing the adaptive, self-governing capacities essential for student autonomy. The higher levels of perceived autonomy support among these groups could also indicate the EDP departments has successfully created a motivational climate that reinforced students' intrinsic motivations and facilitate a sense of volitional functioning. It is essential to continue enhancing these practices, ensuring they are inclusively applied and truly supportive of the diverse needs of all student populations, thereby promoting higher educational outcomes and more profound personal growth.

Trustworthiness

Trustworthiness in qualitative research is a fundamental criterion that reflects the accuracy and credibility of the research findings. The concept of member checking, a process where researchers solicit feedback from their participants on the data or interpretations, has been traditionally heralded as a critical technique for ensuring the validity and reliability of qualitative studies (Motulsky, 2021). Member checking serves not only to enhance validity but also as a reflective space for participants, thus contributing significantly to the trustworthiness of the research (Candela, 2019).

Results from the member checking survey (*n* = 10; 26% of survey sample) concur with the results with an acceptance rate of 90%. The 10% that disagreed with the qualitative results stated that their personal experience did not align with some of the frustrations listed in the results of the thematic analysis. This suggests that for those who responded they may be experiencing these frustrations to

some degree and that not every student in the department has the same frustrations. Supported by the quantitative findings, this is evident, as frustrations scores vary by individual.

Chapter 5: Discussion

This study was designed to examine the intricacies and needs of autonomy, competency, and relatedness within the realm of educational psychology graduate students. This study intertwined the nuanced framework of SDT with a needs assessment approach, viewed through a conceptional framework of constructionism. Through this study, I sought to understand how the fulfillment of basic psychological needs played out in the lived experiences of educational psychology graduate students. Grounded in the understanding that knowledge and reality are not merely discovered, but are actively constructed through social interaction and practices, this research shines alight on the dynamics of motivation and engagement within the academic environment of this department. The fabric of these findings are woven from the threads of individuals and their collective experiences, highlighting the constructed nature of educational environments and their impact on psychological needs satisfaction. This discussion aims to connect with broader theoretical insights and practical implications, discuss the limitations of his study, and offer some directions for future research.

Contributions and Implications

This research extends SDT by applying it to the specific context of graduate education, offering empirical evidence on how the experiences and perceptions of graduate students within their education environment influence their basic psychological needs and overall well-being. This application underscores the theory's relevance and adaptability to various educational contexts, suggesting that SDT's principles are fundamental to understanding and improving student's educational experiences. Incorporating constructionism into this study highlights the importance of the social construction of knowledge and the role of environmental and social contexts in shaping students' experiences and needs satisfaction. This perspective complements SDT by emphasizing that students' motivation and well-being are not only a result of individual factors but also of the interactions within their educational and social environments. A critical theoretical conclusion is the dynamic interaction between individual

agency (autonomy), as conceptualized by SDT, and social structures, as emphasized by constructionism. This interplay suggests that educational environments that support autonomy, competence, and relatedness need to consider both the individual's intrinsic motivations and the social context that facilitates or hinders these motivations.

The growing consumerist view of higher educational influences the dynamics of motivation and engagement within academic environments, shifting the relationship between students and universities towards a consumer-service provider model. This redefines student expectations, making it crucial for academic departments to cater to both intrinsic motivation and tangible outcomes, balancing autonomy, and competence with social and institution goals. Although understanding consumerism within the context of SDT and graduate student basic psychological needs was not the focus of this paper, it is important to understand that expectations for graduate programs are evolving in light of the students as consumers mindset. This evolution underscores the important of understanding what graduate students needs are and how academic department or institutions, can support graduate student basic psychological needs .

This study also takes a nuanced approach to needs assessment, framed within the combined lenses of SDT and constructionism, heralds a shift in how the nurturing of graduate students' psychological and educational journeys are perceived and addressed. By emphasizing the co-construction of educational experiences within the scaffolding of these theories, this research underscores a holistic view of student development where individual needs and societal constructs are interwoven. The implications of this study go beyond the immediate academic settings, suggesting a paradigm where the assessment and fulfillment of psychological needs are seen as pivotal to the creation of educational environments that are both nurturing and empowering. This research, therefore, not only provides a roadmap for targeted, systemic interventions within the educational psychology

department but also sets a precedent for how graduate education can be re-envisioned across disciplines.

The practical implications of this study are many. Taking the needs assessment approach this study offered the graduate student the opportunity to exercise their autonomy, allowing them to articulate both numerically and with their words, how their basic psychological needs could be more effectively supported by their department. Recognizing the importance of autonomy in fostering motivation and engagement, graduate programs should incorporate personalized learning paths actively created with their students. If this is already being done, it is important to assess how these resources are being offered to students and where or not the students are aware that they exist.

This study highlights the need for an environment that bolsters student's sense of competence. Practical steps include integrating hands-on projects, collaborative research study outside of classroom assignments, and real-world problem-solving tasks into the curriculum and opportunities in department research labs. Leveraging the resources and opportunities available in department research labs can significantly enhance students' research skills and academic rigor. Furthermore, to fully support the competence and academic guidance needs of graduate students, the study suggests streamlining graduation requirements by utilizing checklists and providing clear resources that all faculty members are knowledgeable of. Regular advisor check-ins, goal setting, and follow-through can foster a more guided and supportive academic journey. Additionally, offering comprehensive orientations, training, and support for navigating comprehensive exams, project proposals, qualitative data analysis, and institutional processes is imperative.

To effectively address the fundamental psychological need for relatedness within the graduate education setting, it is imperative for the department to actively engage in cultivating a sense of community and facilitating opportunities for peer collaboration. This endeavor necessitates a multifaceted approach that extends beyond traditional academic interactions. Firstly, a thorough

reassessment of current mentorship practices can identify areas for enhancement, ensuring that faculty mentorship not only supports academic and research endeavors but also fosters personal connections and professional development. Faculty play a pivotal role in strengthening students' sense of belonging and connectedness within the academic community. Additionally, creating dedicated spaces for collaborative writing, study groups, or a general graduate student space aside from the TA offices can significantly enhance students' academic experiences. These collaborative forums encourage the exchange of ideas, foster mutual support, and build academic resilience, thereby enhancing the collective academic prowess of the student body. Organizing social events and activities that facilitate informal interactions among students, faculty, and the broader academic community is another crucial step towards building a cohesive and supportive educational environment. These events serve as vital platforms for networking, sharing experiences, and developing a sense of camaraderie among participants. Moreover, the department can extend its efforts to support relatedness by fostering in-person interactions, socialization opportunities, and specific support for international students, as indicated in Table 9.

Limitations

The study's sample, drawn from a single department at one university, limits the generalizability of the findings. Although it provides valuable insights into the experiences of educational psychology graduate students at this institution, the findings do not fully represent the experiences of graduate students in different departments, universities, or geographical locations. The diversity of the sample concerning race, gender, age, and other demographic factors could also influence the extent to which the results can be transferred to broader graduate student populations.

The reliance on self-report measures for assessing psychological needs satisfaction, perceived autonomy support, and relatedness might introduce bias. Respondents' answers could be influenced by their current mood, social desirability bias, or a lack of introspective accuracy, potentially affecting the

reliability of the data collected. During this study the university this sample came from was in a muti-million financial crisis that may have added anxiety or fear for the future of the students ability to attend their program, especially in terms of continued funding and support from the intuition outside of the EDP department.

While the study effectively uses quantitative methods to assess the basic psychological needs of graduate students, this approach may overlook the nuanced, subjective experiences that qualitative methods could uncover. A mixed-methods approach, incorporating interviews or focus groups, might provide deeper insights into the complex dynamics of graduate students' academic experiences and the specific aspects of departmental support that most significantly impact their sense of competence, autonomy, and relatedness.

The study's focus on the immediate academic environment of the educational psychology department may not fully account for external factors that could influence students' experiences and needs satisfaction. These factors include broader institutional policies, societal norms and expectations, and individual circumstances such as personal life stresses or financial constraints, which could significantly impact graduate students' well-being and academic engagement.

Future Directions

Future studies could include a more diverse range of participants by sampling graduate students from various disciplines, institutions, and geographical locations. This approach would enhance the generalizability of the findings and provide insights into the variability of psychological needs satisfaction across different academic contexts. Implementing a longitudinal design could allow researchers to track changes in students' psychological needs satisfaction over time. This could offer valuable insights into the effects of departmental interventions and support mechanisms on student well-being and academic success throughout their graduate studies. It is recommended that the EDP department have their graduate students take the PAS Questionnaire and BPNSFS again after interventions they implement.

Conclusion

This study aimed to explore the needs of autonomy, competency, and relatedness within educational psychology graduate students, guided by Self-Determination Theory (SDT) and a constructionist framework. By illuminating how graduate students' fulfillment of these basic psychological needs shapes their lived academic experiences, the research has provided valuable insights into motivation and engagement within the educational psychology department. Key contributions and implications are summarized below.

Firstly, this research has extended SDT's application to graduate education, confirming that students' basic psychological needs are strongly influenced by their educational environment. Autonomy, competence, and relatedness are fundamental to motivation and well-being, but the extent of their fulfillment depends on the quality of the educational context. Furthermore, the constructionist lens highlighted the importance of social contexts in shaping these experiences, illustrating that motivation is a co-constructed process influenced by social structures.

Secondly, the emerging consumerist perspective within higher education was recognized as a crucial factor that shapes students' expectations and influences motivation. Students increasingly view their education through the lens of a service-provider relationship, underscoring the need for academic departments to balance intrinsic motivation with tangible outcomes. While the study did not focus explicitly on consumerism, acknowledging its role in shaping students' needs helps institutions align their offerings to support both intrinsic and extrinsic goals.

Additionally, this study emphasized a needs assessment approach that allows students to voice their perceptions of departmental support. Personalized learning paths, hands-on projects, collaborative research, and clear guidance are practical strategies that departments can implement to foster a nurturing environment. Enhancing faculty mentorship practices and creating dedicated collaborative

spaces will help meet students' needs for competence and relatedness, promoting a supportive and resilient academic community.

Despite its contributions, the study's limitations, such as a single-institution sample and potential biases in self-reported data, point to the need for further research with broader samples and mixed methodologies. Future studies could also explore longitudinal changes in psychological needs satisfaction, providing insights into the long-term impacts of educational interventions on students' well-being. In conclusion, this study has shed light on the importance and extent to which the EDP department can meet the psychological needs of its graduate. Through the findings, I underscore the need for educational psychology departments, and higher education institutions more broadly, to cultivate environments that empower students and nurture their academic journeys.

Appendices

Appendix A- Qualtrics Survey

Consent Form

University of Arizona
Consent to Participate in Research

You are being asked to participate in a research study. Your participation in this research study is voluntary and you do not have to participate. This document contains important information about this study and what to expect if you decide to participate. Please consider the information carefully. Feel free to ask questions before making your decision whether to participate.

The purpose of this study is to explore the experiences of graduate students in the field of Educational Psychology, with a focus on self-determination and autonomy.

Participation involves completing an online survey, which will ask questions related to your experiences as a graduate student in Educational Psychology. The study is expected to last for a duration of approximately 40 minutes, which includes the time for reading this consent form and completing the online survey. Your participation in this study is entirely voluntary. If you choose not to participate, it will not affect your standing with the University of Arizona or the Educational Psychology department.

There are no expected risks associated with your participation in this study. Additionally, there are no direct monetary benefits to you from participating. However, your responses may allow you to reflect on your needs in the department and contribute valuable information that could benefit educational practices of the department in the future.

The confidentiality of your information is of utmost importance in this study. The information that you give in the study will be anonymous. Your name will not be collected or linked to your answers. The information that you provide in the study will be handled confidentially. However, there may be circumstances where this information must be released or shared as required by law. The University of Arizona Institutional Review Board may review the research records for monitoring purposes.

For questions, concerns, or complaints about the study you may contact Travis Dean at travisdean@arizona.edu. For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact the Human Subjects Protection Program Director at 520-626-8630 or online at https://research.arizona.edu/compliance/human-subjects-protection-program.

I have read the Consent to Participate information above and understand that taking part in this survey, I are allowing my responses to be used for

research purposes.

- ◯ I agree
- ◯ No

Demographics (D) Section 1/5

In this first section, we ask you to provide some basic demographic information, there are nine (9) questions. This information is important as it helps us understand the diverse backgrounds of our graduate students and ensures that our study accurately reflects the demographic composition of the Educational Psychology graduate student community. Please select the options that best describe you.

Rest assured that this information will be used only for research purposes and will be treated with the utmost confidentiality. Your responses in this section, as with the rest of the survey, are completely anonymous and cannot be linked back to you. Your participation and honesty in providing this information are greatly appreciated and will contribute to the meaningful analysis of our research findings. When done, please move on to the next section.

What is your Gender?

- ◯ Male
- ◯ Female
- ◯ Non-binary

○ [ ] Other

What age range do you fall into?

○ 18-30
○ 31-40
○ 41-50
○ 51-60
○ 61+

How do you describe your Race?

○ White
○ Black or African American
○ Native American or Alaska Native
○ Asian
○ Native Hawaiian or Pacific Islander
○ [ ] Other

What is your Student Status?

○ Domestic (US)
○ International (Outside US)

What EDP program are you enrolled in?

○ Master's (MA)

- ◯ Doctoral (PhD)

What is your Enrollment Status?

- ◯ Full-Time (6+ credit hours)
- ◯ Part-Time (5 or less credit hours)

What semester and year did you enroll in your program? If you do not know for certain please provided your best estimate.

What is your Employment Status?

- ◯ Employed by University (TA/RA/GA/Instructor of Record/Other)
- ◯ Employed by Other outside of University
- ◯ Unemployeed

Are you a First-Generation Student? (Neither of your parents have earned a college degree.)

- ◯ Yes
- ◯ No

Open Ended Questions (OA) Section 2/5

In this section, you will find four (4) open-ended questions focusing on your

experiences and perspectives as a graduate student in the Educational Psychology department. Please take a moment to reflect on each question and provide detailed, honest responses based on your personal experiences. There are no right or wrong answers, and we encourage you to express your thoughts. When done, please move on to the next section.

Aside from financial considerations, what kind of experiences or opportunities do you seek during your graduate studies?

In what areas or aspects of your graduate school experience do you believe more autonomy would be beneficial?

What aspects of your degree program have been particularly frustrating?

How can the department provide better support to address these frustrations?

Basic Psychological Needs and Frustration (BPN) Section 3/5

Below, we ask you about the kind of experiences you actually have in your graduate school life. Please read each of the following items carefully, there are twenty-four (24) statements. You can choose from 1- Not True at All to 5- Completely to indicate the degree to which the statement is true for you at this point in your academic career.

Use the following scale to answer each statement. Please be open and honest in your responding; there are no right or wrong answers. When done, please move on to the next section.

	1 Not True at All	2	3	4	5 Completely True
1) I feel a sense of choice and freedom in the things I undertake.	○	○	○	○	○
2) Most of the things I do feel like "I have to".	○	○	○	○	○
3) I feel that the people I care about also care about me.	○	○	○	○	○
4) I feel excluded from the group I want to belong to.	○	○	○	○	○
5) I feel confident that I can do things well.	○	○	○	○	○
6) I have serious doubts about whether I can do things well.	○	○	○	○	○
7) I feel that my decisions reflect what I really want.	○	○	○	○	○
8) I feel forced to do many things I wouldn't choose to do.	○	○	○	○	○

9) I feel connected with people who care for me, and for whom I care.	○	○	○	○	○
10) I feel that people who are important to me are cold and distant towards me.	○	○	○	○	○
11) I feel capable at what I do.	○	○	○	○	○
12) I feel disappointed with many of my performances.	○	○	○	○	○
13) I feel my choices express who I really am.	○	○	○	○	○
14) I feel pressured to do too many things.	○	○	○	○	○
15) I feel close and connected with other people who are important to me.	○	○	○	○	○
16) I have the impression that people I spend time with dislike me.	○	○	○	○	○
17) I feel competent to achieve my goals.	○	○	○	○	○
18) I feel insecure about my abilities.	○	○	○	○	○
19) I feel I have been doing what really interests me.	○	○	○	○	○
20) My daily activities feel like a chain of obligations.	○	○	○	○	○
21) I experience a warm feeling with the people I spend time with.	○	○	○	○	○
22) I feel the relationships I have are just superficial.	○	○	○	○	○
23) I feel I can successfully complete difficult tasks.	○	○	○	○	○
24) I feel like a failure because of the mistakes I make.	○	○	○	○	○

Autonomy Support Questionnaire (ASQ) Section 4/5

These questions are related to your relationship with your graduate faculty in the department as a unit, not your specific advisor. Faculty members have different styles of relating and supporting their students, and we would like to know more about how you feel about your relationship with the EDP faculty. Please state the degree to which the following statements are similar to you and your current relationship with the EDP faculty.

Please read each of the following items carefully, there are ten (10) statements. Use the following scale to answer each statement. Please be open and honest in your responding; there are no right or wrong answers. When done, please move on to the LAST section.

	1- Not True at All	2	3	4- Somewhat True	5	6	7- Very True
1) I feel that the faculty members provide me with choices and options.	○	○	○	○	○	○	○
2) I believe that the faculty members are very understanding of me.	○	○	○	○	○	○	○
3) My faculty members convey confidence in my abilities.	○	○	○	○	○	○	○
4) I feel that my faculty members accept me.	○	○	○	○	○	○	○
5) I believe that my faculty members trust me.	○	○	○	○	○	○	○
6) My faculty members listen to my thoughts and ideas.	○	○	○	○	○	○	○

7) My faculty members encourage me to express my true emotions.	○	○	○	○	○	○	○
8) I feel that my faculty members cares about me as a person.	○	○	○	○	○	○	○
9) My faculty members tries to understand how I see things.	○	○	○	○	○	○	○
10) I feel able to share my feelings with my faculty members.	○	○	○	○	○	○	○

Open Ended Questions (OB) Section 5/5

In this section, you will find four (4) open-ended questions designed to dive deeper into specific aspects of your academic journey, particularly related to self-determination and autonomy. Please take a moment to reflect on each question and provide detailed, honest responses based on your personal experiences. There are no right or wrong answers, and we encourage you to express your thoughts. When done, please remember to submit the survey. Thank you!

What initially led you to consider Educational Psychology as the ideal field for your academic pursuits?

What specific factors influenced your decision to pursue a degree in

Educational Psychology?

What motivated your choice of the University of Arizona for studying Educational Psychology?

Were there any other academic departments or fields of study you seriously considered before settling on Educational Psychology?

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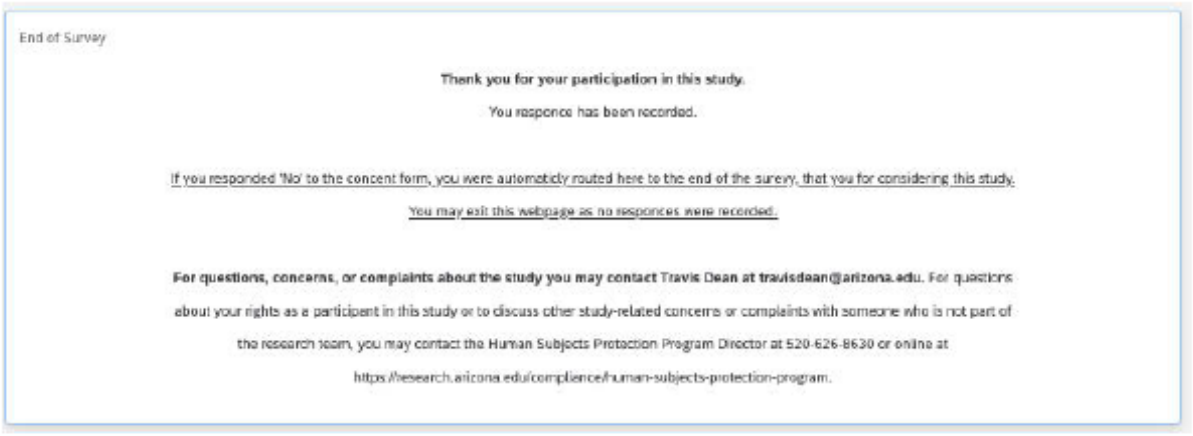

End of Survey

Thank you for your participation in this study.

You response has been recorded.

If you responded 'No' to the concent form, you were automaticly routed here to the end of the surevy, that you for considering this study.

You may exit this webpage as no responces were recorded.

For questions, concerns, or complaints about the study you may contact Travis Dean at travisdean@arizona.edu. For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact the Human Subjects Protection Program Director at 520-626-8630 or online at https://research.arizona.edu/compliance/human-subjects-protection-program.

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