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THE INFLUENCE OF FAMILY ON DOCTORAL STUDENT SUCCESS

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ABSTRACT

Aim/Purpose	This qualitative case-study explores how a doctoral student's family influences the doctoral student's success from the perspective of doctoral students who were enrolled in an online doctoral program.
Background	Previous research has shown that family can significantly influence doctoral student success; however, it is not clear what is meant by family nor what the details of the influence of family look like from the perspective of the doctoral student.
Methodology	A qualitative case-study method was used. More than 500 former students enrolled in an online doctoral program were emailed a web-based survey that elicited information about who they considered to be in their family, how they thought their relationship with their family changed while they were a doctoral student, and how much they thought their family understood what it means to be a doctoral student. One hundred thirty-three (24%) former students participated in the study. Qualitative data were analyzed both manually and electronically by three researchers who subsequently triangulated the data to confirm themes.
Contribution	This study defines 'family' from the doctoral student perspective and provides an in-depth look at how family influences doctoral student success including explanation of family support and lack thereof that previously has been shown to be significant to facilitating or hindering doctoral student success.
Findings	Doctoral students mostly considered their immediate and extended family (i.e., spouses, significant others, children, grandchildren, parents, grandparents, grandchildren, nieces, nephews, and parents-in-law) to be family, but some considered friends and coworkers to be part of their family as well. Most doctoral students experienced positive family support, but for those who did not, two major themes

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	emerged as problematic: a reduction in the amount of time spent with family and family not understanding the value of earning a doctoral degree.
Recommendations for Practitioners	Institutions of higher education should consider these findings when creating interventions to increase retention of doctoral students. Interventions might include orientation programs to help family members understand the value of earning a doctoral degree, the time commitment necessary to complete a doctoral degree, and ways to support a family member earning a doctoral degree.
Recommendations for Researchers	The findings inform future research by surfacing more specific information about what family support and lack thereof looks like for doctoral students and what interventions for improving family support might include.
Impact on Society	Improving family support may improve doctoral student success by adding more doctoral-trained leaders, innovators, scholars, and influential educators to society and by supporting the financial investment of students and their families by decreasing attrition.
Future Research	Future research should focus on creating quantitative instrumentation to measure the influence of family on doctoral student success. Student populations from different types of doctoral programs (e.g., PhD, MD, DO) might be studied as well. Interventions aimed at improving family support should be designed, implemented, and evaluated for effectiveness.
Keywords	doctoral student, doctoral student success, retention, attrition, family support, family integration, qualitative, orientation

INTRODUCTION

Completing a dissertation requires support from multiple external sources. “Bring on your family as a key component of your staff - because it is the family that finishes the dissertation” (Onieal, 2010. p. 4). But, who is family? And, why are they so important?

About half of all doctoral students do not complete their doctoral degrees (Di Pierro, 2007; Lovitts, 2005; National Science Foundation [NSF], 2009; Sowell, Bell, & Mahler, 2008; Spaulding & Rockinson-Szapkiw, 2012). Not only will the students who do not finish their degrees likely not go on to become the leaders, innovators, scholars, and influential educators they might have become (Gardner, 2009), not finishing a doctoral degree is also problematic financially because a doctoral student may have spent thousands of dollars on a degree they never received. Additionally, they may feel stigmatized as a failure, which can also become a barrier to their professional and personal success (Lovitts, 2001). The low rate of doctoral degree completion highlights the importance of identifying barriers to doctoral student success and developing support services to minimize those barriers and maximize facilitators to doctoral degree completion.

Previous studies have identified factors shown to be associated with facilitating or hindering doctoral program completion. One factor important to doctoral student success is the influence of family (Baker & Pifer, 2011; Gardner & Gopaul, 2012; Hlabse, Dowling, Lindell, Underwood, & Barsman, 2016; Volkert, Candela, & Bernacki, 2018), and family integration is a relatively strong predictor of doctoral student persistence (Rockinson-Szapkiw, Spaulding, & Spaulding, 2016). However, family is not well-defined in the literature, and how family influences doctoral student success is not well understood. This qualitative study explored the influence of family on doctoral student success among students who completed as well as did not complete an online doctoral degree program.

LITERATURE REVIEW

Multiple variables have been used to measure doctoral student success, including doctoral program completion, persistence, attrition, retention, doctoral student intent to leave, and doctoral student intent to persist. Factors hindering doctoral program success include the inability to be self-directed (Ponton, 2014), lack of a sense of community between students (Rovai, 2014) and between students and faculty (Terosky & Heasley, 2015), poor mentorship and feedback (Terrell, Snyder, & Dringus, 2012), low feelings of student-to-student and student-to-faculty connectedness (Terrell et al., 2009), isolation from peers (Ali & Kohun, 2006; Delamont, Atkinson, & Parry, 1997; Lewis, Ginsberg, Davies, & Smith, 2004), students feeling like they do not fit into the department-level structure and culture (Golde, 2005), students feeling financially stressed (Wao & Onwuegbuzie, 2011; Earl-Novell, 2006; Lovitts, 2001), and low levels of support from friends and family (Volkert et al., 2018; Cohen, 2011). Similarly, factors fostering doctoral student success include a sense of belonging (Barnett, 2014), participation in a community of practice with doctoral peers (Ivankova & Stick, 2005; Terrell et al., 2012; Tweedie, Clark, Johnson, & Kay, 2013), consistent, timely, and substantive feedback from the dissertation chair (Rademaker, Duffy, Wetzler, & Zaikina-Montgomery, 2016; Rockinson-Szapkiw, et al., 2016; Davis, Wladkowski, & Mirick, 2017), students having expectations about the program, coursework, and policies that match those of the program (Hoskins & Goldberg, 2005), support services (Rockinson-Szapkiw, et al., 2016), and family support (Pauley, Cunningham, & Toth 1999; Rockinson-Szapkiw et al., 2016; E. G. Smith & Delmor, 2007; Volkert et al., 2018).

Support from family is the most discussed source of support among doctoral students (Gardner & Gopaul, 2012), is critical for doctoral student persistence (Hlabse et al., 2016; Volkert et al., 2018), and is particularly important once the doctoral students enter the dissertation phase of their doctoral program (Baker & Pifer, 2011). In addition, social support, specifically attributed to students' networks of family, friends, and educators, was identified as important to academic success (Dabney & Tai, 2013; Jairam & Kahl, 2012). While students need social support to succeed, the types or modes of relationships may vary greatly, might shift during the student's doctoral progress, and are often quite individualized (Hopwood, 2010).

Gardner and Gopaul (2012) found in a qualitative study of 10 students with an average age of 44 years and enrolled part-time in doctoral programs of various disciplines that "family members were the most often discussed source of support in their lives" (p. 70), while employers and co-workers were the second most-discussed source of support. Similarly, of 140 students who were either enrolled in or a graduate of one of 40 different Doctor of Nursing Practice (DNP) programs, identified family, peers, and friends as the most important factor to successful progression in their DNP program (Hlabse et al., 2016). From a group of 835 nursing students, most being 36 years of age or older, enrolled in PhD or DNP programs from many different programs in the United States, Volkert et al. (2018) also showed that as support from friends and family increased, intent to leave a nursing doctoral program decreased.

Given the importance of family in doctoral student persistence, it is not surprising that a lack of family support creates difficulties for students and affects student persistence to finish the degree program (Cohen, 2011). Cohen's (2011) literature review of doctoral student persistence among doctoral students of various disciplines showed that a lack of family support and juggling family needs, employment, and schoolwork are associated with low persistence. Additionally, doctoral students identified stress associated with family relationships as the most common type of stress they encountered (Reilly & Fitzpatrick, 2009; Schmidt & Hansson, 2018). Among 89 DNP students, the most frequent life stress reported (37.2%) was relationships with family/friends (Reilly & Fitzpatrick, 2009). Schmidt and Hansson's (2018) literature review of articles selected from journals of a variety of disciplines about the well-being of doctoral students showed that family was often cited as a stressor. A better understanding of how family influences doctoral student success will allow doc-

toral program administrators to develop more effective interventions to improve the likelihood of doctoral student success.

The influence of family on doctoral student success may depend partly on family integration, or how well the family is included in the doctoral process. Rockinson-Szapkiw et al. (2016) conducted a study of multiple predictors of online doctoral student persistence, one of which was family integration. In the study, they measured family integration by asking respondents one question: “How much do aspects of your family life and connection with your family suffer because you are a doctoral candidate?” (p. 106). Answer choices were based on a 5-point Likert scale ranging from *Very Much* to *Very Little*. Responses showed that family integration was a statistically significant predictor of online doctoral student persistence. The researchers concluded that opportunities for family integration be included throughout the doctoral process, such as family orientation to the doctoral program as well as helping families understand the commitment necessary for the doctoral student to succeed. In another study, Volkert et al. (2018) measured family support by asking respondents to rate the following: “Support from my family has been critical to my success in my nursing doctoral program” (D. Volkert, personal communication, February 23, 2018). They suggested doctoral program administrators consider “ensur[ing] that social system supports are put in place that help build supportive relationships for the student and their significant others/family members” (p. 213). While research shows the importance of family support for doctoral student success, a review of the literature did not find any doctoral student family interventions that had been created, implemented, and evaluated or even a congruent definition of *family* within the context of doctoral student success.

In addition to the role of family being measured differently from one study to another, the term *family* itself needs to be clearly defined when surveying doctoral students to ensure they are answering questions about family based on the same concept. While traditional concepts of family remain, there is no one definition of the term *family*. Indeed, the concept of family has changed over time. “In recent decades, the concept of family has been subjected to redefinition as family scholars have debated the question of who and what constitutes family” (Schadler, 2016, p. 503). Researchers use various operational definitions including family relations, meaningful practices, caring practices, intentions, kinship systems, togetherness, intimacy, personal and situated communities, and intersectional power structures (Schadler, 2016). Alternatives to the traditional perception of *family* are found in the literature. Online support communities, academic cohorts, and communities of practice are considered pseudo-families by some non-traditional students (Byrd, 2016; Tsai & Pai, 2013). How a doctoral student defines family and who they consider a family member can be situationally dependent and change throughout their coursework and dissertation process. In a phenomenological study, Byrd (2016) interviewed online doctoral students to better understand how a sense of community might contribute to academic success and degree completion. Six of 12 participants identified or alluded to their doctoral cohort as pseudo-family; one commented “being in my cohort is like being a part of a family” (Byrd, 2016, p. 113). Similarly, among doctoral students working in communities of practice, one participant described an online doctoral community of practice as support “when help is needed, anytime, anyplace, for as long as necessary” (Yalof & Chametzky, 2016, p. 42). These previous research findings show how family seems critical regardless of how family is defined.

To better understand how *family* influences doctoral student success, this study asked students to define the term *family* by identifying who they considered to be members of their family and also asked them to share how members of their family influenced their doctoral experience and suggest ways the university might facilitate family integration. The purpose of this study is to better understand the influence of family on doctoral student success from the perspective of the doctoral student.

METHODS

A qualitative case-study method as defined by Baxter and Jack (2008) was used to examine factors that supported and hindered completion of a doctoral degree. A phenomenon (doctoral degree completion) and the real-life context in which it occurred (the family) was investigated (Yin, 2003) to

answer the question of why some students were able to complete their doctoral degree and some were not. Cases were defined as individual former doctoral students and were bound by their enrollment in a specific online doctoral program. Potential cases included a convenience sample of all former students who had been enrolled in a 100% online Doctor of Health Education (DHEd) program ($N=548$) at A. T. Still University from which IRB approval was obtained for this study.

The online doctoral program was created within a specific college of a university founded on the tenets of osteopathic medicine. All programs in the college are completely online and focus on health sciences. Study participants were enrolled in the program accredited to offer a doctoral degree in Health Education, the DHEd. To complete the degree, students were required to take 16 online courses spanning theory, practice, and quantitative evaluation offered over a series of eight 10-week blocks. Once the online course work was satisfactorily completed with at least a grade of C, students were allowed to enroll in the dissertation sequence, select a dissertation chair, and assemble a dissertation committee. In addition to the chair, who is required to be a program faculty member, the dissertation committee must include at least one external committee member that meets specific requirements related to academic practice. Students were given seven years to complete the dissertation, but extensions may be granted for extenuating circumstances. Most communication with the chair and committee is conducted through email, but conferences (both phone and online) may also be scheduled.

A constructivist paradigm was applied to the study conduct. Respondents were allowed to construct their own reality with respect to their definition of family and the roles and influence of those individuals relative to the outcome of their doctoral education. The respondents could therefore create their own meaning about their educational outcome.

The researchers are doctoral educators with extensive experience mentoring doctoral students in online programs. As such, the researchers view the written data with a subjective lens that strengthens the study by bringing a deeper awareness of context to the students' narratives.

RESEARCH QUESTIONS

The research questions addressed in this study are:

1. How do students define family in terms of who they regard to be members of their family?
2. How do students explain their family's influence on their doctoral experience?
3. What do students think the university could do to help family support them?

INSTRUMENTATION

An electronic survey (see Appendix) was created and distributed using the secure web application, Research Electronic Data Capture (REDCap). The survey instrument was developed based on a literature review and on communications the investigators had with doctoral students. The survey was reviewed by faculty within the doctoral program for face and content validity and was designed to simulate an in-person interview using a written format. Since it was not intended to be a quantitative survey, but rather a method for collecting qualitative written data, reliability and validity were established through ensuring trustworthiness.

Trustworthiness was ensured through attention to credibility, transferability, dependability, and confirmability. Credibility was addressed by using the online survey data collection method. The survey was the only method of data collection. With this method, respondents are guaranteed anonymity and are therefore more likely to be frank and honest with their responses. Transferability was ensured through the detailed description of the setting and target population of the research. Dependability was established in the description of the research methods and inclusion of the survey as an appendix such that other researchers are able to faithfully replicate the research with similar populations. Confirmability was addressed through triangulation of data analysis using three different cod-

ers and two different coding methods. Each analyst audited the data collection process used by the principal author to ensure it produced data with adequate depth of description and detail. Additionally, each analyst audited the analysis of the other analysts to ensure adequacy of the coding process for extracting salient themes.

Although parts of the survey were close-ended descriptive questions, respondents were able to describe their versions of reality by defining what “family” meant to them and to explain the influence of the identified family members in their doctoral education outcome as they perceived it. There were two questions on the survey that used Likert-type responses. However, these were intended only as anchors for the text fields that followed and to assist with data coding; therefore, no quantitative reliability testing was conducted for those questions. For the purpose of inter-rater reliability, analysts met with each other to compare and synthesize codes and themes. As such, this was a triangulation process.

Qualitative data were captured in open, unformatted text fields through unrestrained and unstructured written commentary making the data qualitative in nature. There is precedence for written accounts as qualitative data (Handy & Ross, 2015). This method is time-efficient and can facilitate collection of high quality, descriptive data that supports data analysis and interpretation. The written data tend to be highly focused, and the format allows for more reflection on the part of the respondent.

After study participants answered questions about gender, age, and ethnicity, they were asked to define family by listing who they consider to be members of their family. Participants then answered questions for each family member listed. First, they were asked whether their relationship with each family member changed during the time they were working on their DHEd degree, how it changed if it did, and to what extent the changed was related to their pursuit of a doctoral degree. Second, they were asked whether each family member understood what was needed by a doctoral student to be successful, how so, and to what extent this support should be given. Finally, they were asked to explain what they thought the university could have done to enhance family support throughout the doctoral process, as well as anything else related to family support that they believe was important.

STUDY PARTICIPANTS

Participants in this study were enrolled in the online DHEd program at some time between June 2006 and March 2018 (i.e., the only period of time when enrollment into this program occurred) but were no longer enrolled in the program, either because they had graduated or were withdrawn from the program due to various reasons including personal, financial, medical, academic, or work-related. A database administrator provided the researcher with the list of personal email addresses that were in the university’s database for students who met the study criteria. Of the 548 former students who were recruited as potential cases for this study, 133 (24%) consented to participate, including 97 who completed the DHEd and 36 who did not.

DATA COLLECTION

Study participants were recruited via an email sent June 22, 2018, that included a link to an online survey. Students were asked to agree to consent to participation. The informed consent agreement stated that the survey was voluntary, and that the participant could abandon the survey at any time without consequence. For three weeks after the initial recruitment email, on Mondays, reminders were automatically sent out by REDCap to those who had not completed the survey. Data were collected by REDCap as study participants completed surveys. A week after the third and final reminder was sent, the data were downloaded from REDCap and imported into an Excel spreadsheet for analysis.

To ensure that each participant responses would be counted only once, the survey was sent to each study participant with a unique Uniform Resource Locator (URL), rather than a public URL, so that data for each participant was recorded only with their first submission.

DATA ANALYSIS

The textual data were systematically organized, described, and interpreted (Hammarberg, Kirkman, & de Lacey, 2016). A thematic analysis, a method for identifying, analyzing, organizing, describing, and reporting themes found within a data set (Braun & Clarke, 2006), was conducted using two different methods by three researchers. One researcher conducted the thematic analysis manually, and two researchers together conducted the thematic analysis electronically. A combination of open and axial coding was used by the analysts incorporating both descriptive and pattern coding.

The researcher who conducted the manual thematic analysis used the framework method (J. Smith & Firth, 2011), organizing text data into a matrix output of rows and columns, where each row represented a study participant and each column represented a different theme or construct. After initial familiarization with participant responses, the researcher identified preliminary themes in the raw data sets via repetition. In each cell, the researcher summarized quotes from the raw text and separated participants by program status (completed the program or did not complete the program) and family understanding of the doctoral degree process (family did understand, or family did not understand). The broad preliminary categories based on the initial review were used to classify emergent themes and cross-check for overlap using contextual evaluation to move beyond word repetition count errors. Participant responses that included relevant keywords that did not qualify as data based on context (e.g., repeated response) were removed. All individual data entries were then coded by theme and counted. A second full review was used to identify missed keywords and phrases and to corroborate initial findings. Content-poor, incomplete, and blank entries were excluded. Finally, emergent themes were ordered by frequency, and the manually coded dataset was retained for comparison to the electronic analysis. This process was completed four times.

The researchers who conducted the thematic analysis electronically imported the text data from the Excel file into NVivo 12 qualitative software and used inductive, line-by-line coding to create initial nodes that were later collapsed to create salient themes. Initial descriptive nodes were created for those respondents who completed their doctoral degree and those who did not. Within each of these descriptive nodes, additional nodes were created for each survey item. Initial coding consisted of creating open nodes within each survey item code and of associating text phrases with the open nodes. Nodes were then compared across survey item nodes and collapsed to create salient themes within the descriptive nodes. First, the researchers independently reviewed all individual responses to summarize emerging themes in each variable category through an open coding process based on word and phrase repetition. Emergent themes were cross-checked across data columns for duplication, and salient themes were developed based on the words in text chunks and their context. Next, each data set was reviewed by the two researchers, individual responses were coded under the appropriate theme, and themes were tabulated based on frequency; content-poor, incomplete, and blank entries were excluded. Finally, each coded data set was organized by participant program status (i.e., completed the program or did not complete) and by family understanding (i.e., family members understood participant needs or did not understand participant needs) for additional analysis.

Triangulation of data analysis occurred when the two researchers who analyzed the data electronically and the one researcher who analyzed the data manually compared the themes derived from the data, after which it was determined similar themes had emerged from the two separate data analyses.

FINDINGS

A total of 133 former students participated in the study. Data for study participants were coded regardless of whether the entire survey was completed because each survey item could be answered

separately, no survey item was dependent on any other item. More former students who graduated from the DHEd program completed the survey than did former students who did not graduate. Demographic information is shown in Table 1. Most respondents were between 45 and 54 years of age (35.3%), followed by those older than 54 years (32.16%), those between 35 and 44 years (25.6%), and those between 25 and 34 years (7.5%). Ethnicity included 30.1% Caucasian, 24% Black/African, 3.8% Latino/Hispanic, 2.3% Asian, 1.5% reporting other, and 0.8% preferring not to answer the question. Most respondents were female (66.2%).

Table 1. Participant Demographics

	Former students who completed DHEd (<i>n</i> = 97)		Former students who did not complete DHEd (<i>n</i> = 36)		Total	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Age (yrs.)						
> 54	33	34.0	9	25.0	42	31.6
45-54	33	34.0	14	38.9	47	35.3
35-44	23	23.7	11	30.6	34	25.6
25-34	8	8.2	2	5.6	10	7.5
Ethnicity						
Caucasian	23	75.2	17	47.2	40	30.1
Black/African	19	20.3	13	36.1	32	24.0
Latino/Hispanic	2	2.1	3	8.3	5	3.8
Asian	1	1.0	2	5.6	3	2.3
Other	2	2.1			2	1.5
Prefer not to answer			1	2.8	1	0.8
Gender						
Female	65	67.0	23	63.9	88	66.2
Male	32	33.0	13	36.1	45	33.8

Themes that emerged did not differ significantly between former students who had graduated from the program and those who had not graduated; therefore, results are presented for the entire group. Theme definitions and their alignment to the research questions are presented in Table 2.

Table 2. Themes definitions and alignment to research questions

Research Question	Theme*	Definition
How do students define family in terms of who they regard to be members of their family?	Family Member	Study participants self-reported who they considered to be family members.
How do students explain their family's influence on their doctoral experience?	Time (<i>n</i> = 164)	Encapsulates both negative and positive comments related to time, such as feelings of support or gifts of time, or family members feeling resentful because of the amount of time the student had to dedicate to education.

Research Question	Theme*	Definition
	Family Support (<i>n</i> = 112)	Captured students' beliefs about the role of family support, encouragement, and physical manifestations of support including behaviors.
	Positive Experience (<i>n</i> = 202)	Included self-reported positive familial influences, such as strengthened relationships and increased communication.
	Pride from Family (<i>n</i> = 13)	Captured comments related to family members placing pride on education and accomplishments.
	Negative Feedback (<i>n</i> = 112)	Included participant comments related to family reactions/behaviors that were reported to be not helpful to the student.
	More Stress (<i>n</i> = 16)	Encapsulates comments related to additional stress caused by family members to include responses related to shifts in responsibilities causing resentment, and family crisis.
	Cost (<i>n</i> = 13)	Captured participants' responses related to financial stresses/changes and cost of time.
	Lack of Understanding (<i>n</i> = 77)	Included comments related to family members not understanding the online higher education process or workload.
What do students think the university could do to help family support them?	Helpful (<i>n</i> = 11)	Included comments that indicated the university was helpful in some way.
	Suggestions (<i>n</i> = 35)	Encapsulates suggestions for what can be done for the future or that the topic of family support was not the responsibility of the university.
	Unhelpful (<i>n</i> = 7)	Included comments indicating the university was specifically not helpful in some way.

*The "*n*" equals total number of responses. Several study participants provided responses when considering multiple family members.

HOW DID STUDENTS DEFINE FAMILY IN TERMS OF WHO THEY IDENTIFIED AS BEING MEMBERS OF THEIR FAMILY?

One-hundred-thirty-three students provided lists of whom they considered to be members of their families. The number of family members identified ranged from 1 to 11. Family members included mostly immediate and extended relatives. However, 19 students also included friends, nine included people associated with their employment (e.g., co-workers, colleagues, boss), two included people from their church, and one included God.

Reflecting the changing nature of family over the course of a lifespan, different age groups had different definitions of who they considered to be family members. While all included some mention of the traditional nuclear family (spouse and children), the differences in the identification of additional members as well as the emphasis placed on the nuclear family mirrored differences between generations. For example, those over 54 years of age identified larger family groups that included extended family over four generations (parents, spouses, children, and grandchildren) and more often mentioned colleagues, friends, and mentors (including spiritual ones) compared to respondents in the younger age groups. Those in the 45 – 54 years age group were the only ones who included ex-spouses and ex-significant others as part of their family. This group's definition of family members focused on the nuclear family (spouse and children), but in almost every case, at least one parent was also included. While colleagues and friends were occasionally mentioned, the frequency was much lower than for the oldest age group. Along with spouses and children, those in the 35 – 44 age group most often included siblings as well as grandparents, aunts, and uncles. This age group was the only group to include in-laws. The 25-34 age group was the only group where respondents included boy-friends, girlfriends, and fiancées/fiancés. This age group most often also mentioned parents and siblings as who they considered to be family.

HOW DO STUDENTS EXPLAIN FAMILY INFLUENCES ON THEIR DOCTORAL EXPERIENCES?

General themes for how students explained their families' influences on their doctoral degrees were focused on *time, family support, positive experience, pride from family, negative feedback, more stress, cost, and lack of understanding* (see Table 3). When asked if family members understood what was needed in order to be successful as a doctoral student, most students ($n=163$) responded *yes*, and fewer ($n=90$) responded *no*; these were the numbers across family members for whom the questions were answered, which was one or more for each of the 133 study participants. Of the study participants who reported family members did understand what was needed to complete a doctoral degree, 117 thought family members understood to a very great or great extent, 28 to a moderate extent, and eight to a small extent; again, this question was answered for one or more family members. As an example, one participant wrote "*our day-to-day activities were adjusted to allow for study and online participation in the program*" and another said "*she [friend] was in a different doctorate program at the same time, so we became each other's support.*" Of the students who responded that family members did not understand what was needed, reasons given were related to not understanding the doctoral process ($n=27$) and not understanding the time commitment required ($n=16$). Some participants ($n=11$) also reported family members did not understand why they would want to get a doctoral degree. For example, one participant wrote, "*He [son] thought work was all that was important and since I had a Masters and certification that there was no need to go further at my age.*" Another participant actively withheld information on their doctoral experience saying, "*my mother was not told until I was ready to defend to not create added pressure.*"

When asked "Do you think [family member] understood what you needed in order to be successful as a doctoral student?" a lack of understanding from family members was expressed by study participants. Some reported changes in relationships, either positively or negatively, based on understanding or lack of understanding, respectively, while others reported no change. When asked to describe how their relationships with family changed, of the 57 who responded, 22 shared comments related

to lack of time (time commitments of the degree program, which may have also resulted in lack of time with family), followed by family support ($n=14$), a positive experience with family ($n=11$), pride from family ($n=7$), negative feedback from family ($n=7$), more stress ($n=6$), and cost ($n=3$). Table 3 contains comments organized by theme as expressed by the participants and whether the comments aligned with participants reporting changes (see Appendix, survey item 7) in family relationships (positive or negative).

Time themes were expressed across all age groups. This most frequently was expressed as both the student and the family not anticipating the amount of time required for coursework and dissertation development and how that would affect family life. This finding was expressed for both *negative* and *positive* experiences. Those students reporting positive experience of support from their families more often expressed understanding based on similar academic experiences if they were in the 45 – 54 years or greater than 54 years age groups. For example, one student reported, “He [husband] *has a doctorate in another field and understood the work and time needed to reach the goal of obtaining a degree in higher learning.*” Those in these age groups also reported they received practical academic help from their family members. This experience was not reported in the younger age groups. Financial stresses (*cost*) were most often mentioned by those greater than 54 years of age. One student wrote, “She [wife] *was not happy with the finances involved.*” The 35 – 44 years age group more often reported they had family members who did not understand what they needed to be successful. Most of these comments were related to the effect of their doctoral education on their young children (e.g., “They were young and did not understand what I was doing or why.”) The 45 – 54 years age group most often reported negative changes in their relationships because of the doctoral experience (“My first husband was very threatened by the fact I was working on my doctorate, and it ... contributed to a divorce a few months after I began the program.”), while the 35 – 44 age group reported more positive types of changes (“...[there was a] greater depth of relationship and supportive nature.”).

When asked what family support was most important to the student, the most consistent themes across all age groups were *encouragement*, *supportive attitude*, and *understanding*, and these themes were especially dominant in the 35 – 44 years age group. In addition to these, the greater than 54 years age group most often mentioned that the gift of time to work was the most important support their family members gave them. The 45 – 54 years age group also frequently mentioned that the most important support they received was through professional counseling and the ability to work asynchronously. Unlike the older age groups, the 25 – 34 years age group most often expressed the extent of negative support was important to them because of the disappointment they experienced as a result. One student reflected that, “Most of them are unfamiliar and disengaged with the process, likely due to jealousy they stayed disengaged in my pursuit of a doctoral degree.”

WHAT DID STUDENTS THINK THE UNIVERSITY COULD HAVE DONE TO HELP FAMILY SUPPORT THEM?

Thirty-six participants provided an answer to the question “What else do you think the university could have done to help your family support you throughout your doctoral process?” Half of the participants did not think the university could help them with family issues related to working on their doctoral degree. Twelve participants provided suggestions, such as spreading out assignment due dates, offering an orientation session for family members, providing counseling services, and reducing cost. Five participants suggested the university reduce the amount of work necessary to complete the degree. Participant written responses to the question were expressed in comments such as:

“Spouse orientation session; ongoing contact”

“Offer counseling”

“Provide support for students who have to have the tough conversation with friends and family members. The tough conversation being about needing to turn down requests to attend social events and the like in order to make time for doctoral work.”

While most students in all age groups reported they did not believe the university could (or should) do anything further to support them, this was most often expressed by those in the greater than 54 years age group. This group had fewer instances of suggestions for any kind of additional support. Both the 25 – 34 years and 45 – 54 years age groups more frequently requested direct family communication and support from the university in the form of informational materials such as brochures, podcasts, and videos about the process and time commitments of the doctoral experience. The 35 – 44 years age group most often requested some type of personal counseling or mentoring be made available to students.

Table 3. Family Influence on Doctoral Experience Themes

Theme*	No Change in Relationship	Change in Relationship
Lack of Time (n = 164)	<p>Did not understand “actual time commitment.”</p> <p>“He knew that it was time-consuming and challenging because he is a college graduate.”</p> <p>“supportive of time limitations”</p>	<p>“She was starting high school and felt I spent too much time away; not involved enough with her.”</p> <p>“Strained our marriage. I was not available on weekends, was unavailable to attend most social gatherings.”</p> <p>“Time together became more focused, less relaxed.”</p> <p>“The time commitment caused me to have to stay home from family functions at time which negatively impacted our relationship.”</p>
Family Support (n = 112)	<p>“She was supportive because she felt it was what I wanted.”</p> <p>“no, as the only person in my family to attend college she did not understand the trials and tribulations of the dissertation process, but she did support me as much as she could”</p> <p>“She was responsive to my needs for support.</p>	<p>“He supported me and stepped in to help more with our children. I think it made him a better father.”</p> <p>“Unconditional love and support”</p> <p>“My wife supported my work efforts completely through the program and has the goal of completing an equivalent program at a future time.”</p>

Theme*	No Change in Relationship	Change in Relationship
Positive Experience with Family (<i>n</i> = 202)		<p>“Relationship strengthened and love/respect for each other enhanced.”</p> <p>“Positive - better communication - to make sure all household chores and family function was optimal during this time.”</p> <p>“We became closer, he supported me through the process.”</p>
Pride from Family (<i>n</i> = 13)		<p>“My father is the (first) person in our family to attend college and graduate. He grew up poor and he struggled to get his education, so him seeing me get my doctorate was very important to him (and) made him very proud. We grew closer.”</p> <p>“He was very supportive and proud. His support came in the form of asking me if I needed anything and calling me regularly as we were in two different states.”</p> <p>“She began to act proud and had more belief in my abilities.”</p>
Negative Feedback (<i>n</i> = 112)		<p>“Negative while working on degree when I ignored him. Positive in the long term.”</p> <p>“I was more irritated with the things he did and didn’t do than I was when not in the program.”</p>
More Stress (<i>n</i> = 16)		<p>“Added stress.”</p> <p>“Increased stress at home created tension, additional responsibilities were expected which led to resentment and misunderstandings.”</p>
Cost (<i>n</i> = 13)	<p>“I’m not paying for it, so don’t ask; Waste of time and money.”</p>	<p>“It took an abundant amount of time and money away from the family.”</p> <p>“He felt it as not important, resented the money spent on the program.”</p>

Theme*	No Change in Relationship	Change in Relationship
Lack of Understanding (<i>n</i> = 77)	<p>“They were pretty unfamiliar with the higher education process in general but understood that it was demanding.”</p> <p>“Most of them are unfamiliar and disengaged with the process.”</p> <p>“She was too young to understand.”</p>	<p>“He had not completed college to any extent, so was not overly familiar [with] what it is like to attend. He was also not familiar with the online program process and how time consuming it is.”</p> <p>“He does not understand the work involved because he did not take any post graduate courses beyond his bachelor’s degree.”</p>

Note: Change in relationship was indicated as “yes” or “no,” so could have been either positive or negative.

*The “*n*” equals total number of responses. Several study participants provided responses when considering multiple family members.

DISCUSSION

Study findings show that doctoral students primarily defined family to include immediate and extended family members in the traditional sense (i.e., nuclear family, which consists of parents and their still-dependent children, and sometimes adult relatives of one or both of the parents) as defined by Bales and Parsons (1955). However, the fact that doctoral students also considered people outside of their immediate and extended families, such as friends and coworkers, to be family members supports Schadler’s (2016) suggestion that *new materialism* accounts for an emerging concept of family. In this study, the respondents frequently defined family to include more members than just those representatives of the nuclear family.

New materialism indicates the way the world “works” is not necessarily according to a previously defined system or structure because the material world is complex, heterogeneous, and emergent (Fox & Alldred, 2018). As a result, rather than assuming study participants held a common understanding of family membership, study participants were asked to list all individuals they considered to be members of their family. While most study participants considered families to consist of immediate and extended family members, some also included friends and coworkers. In other cases, family was defined to consist of only a spouse. Therefore, it is important for future researchers to be aware that the definition of family can vary for students, affecting the validity of data resulting from questions about family. As students may consider family to be nuclear family members, friends, coworkers, and/or a significant other, instrumentation referring to family should clarify what is meant by family. Similarly, interventions to help build supportive family relationships for doctoral students should be targeted at immediate and extended family members as well as friends and coworkers and should remain open to new and emergent categorical definitions of family members. Indeed, a support system including both family and friends has been shown to be essential for doctoral student success (Dabney & Tai, 2013).

While previous research has shown family support significantly influences doctoral student success (Cohen, 2011; Hlabse et al., 2016; Volkert et al., 2018), this study helps to clarify how family support and lack of family support manifest. Doctoral students who experienced family support expressed family support in terms of social support (e.g., unconditional love, motivation) as opposed to financial and other types of support. They also indicated that working on the doctoral degree was a positive experience with their family and/or their family had pride in them for pursuing a doctoral degree. Conversely, doctoral students who experienced a lack of family support expressed that family

time was significantly reduced, that family did not understand the value of the degree, including thinking that it was not a good use of money, and/or that pursuing the degree added to stress in the family. These findings corroborate those of Rockinson-Szapkiw et al. (2016) who found that doctoral candidates who experienced integration with family members during their doctoral journey were more likely to persist in their doctoral program.

A reduction in family time, a lack of understanding among family of the value of the doctoral degree and misunderstanding of the requirements it takes to pursue a doctoral degree emerged as major themes. Study respondents expressed a mismatch between the actual demands of the doctoral degree program and the families' expectations about the time that would be required. Some participants reported that family members thought earning the degree was a waste of money. Therefore, post-graduate institutions should consider these findings when evaluating current (and developing new) processes and informational materials. Some study participants expressed that it would have been helpful to have information available (e.g., pamphlet, coaching) about how to address family concerns. The population of students from which the sample was drawn for the current study had attended a post-graduate institution with no orientation dedicated to this issue and no orientation providing any information about how to address family concerns. Whether these types of interventions may or may not help is unknown but should be considered in future research. Since the current study findings indicate intervention needs may differ depending on age, future research may further explore needs by age group as well.

To increase understanding among family members, post-graduate institutions could include family members in new student orientations and develop informational materials designed to educate family members about the time commitment necessary to complete the degree, the timeline for completing the degree including major milestones (e.g., core coursework, data collection, data analysis, comprehensive exams), and the value of a doctoral degree, including earning potential and job security, higher scholarly respect, and greater job satisfaction. For example, an infographic that shows exactly what happens in each term or semester of the program including dates would help family members know what occurs when, and what to expect, affording the opportunity to better plan family events such as family vacations. Also, family members could be educated about the value of a doctoral degree. For example, a family orientation might include important information from the U.S. Bureau of Labor Statistics (Vilorio, 2016) that reports people with advanced degrees earn more and have lower rates of unemployment than people with less education. Indeed, 96% of those with post-graduate degrees recognize the benefits of their degree and report that "it has paid off" (Pew Research Center, 2014, para. 9). Jairam and Kahl (2012) also recommend educating family members about the doctoral student experience after finding that family support can be both positive and negative. Findings from the current study indicate a need for educating families about the value of the doctoral degree and the time commitment involved for the student and how that might affect the family. Providing a timeline may be helpful, so the family and doctoral student can forecast important milestones and time to completion.

Another intervention that may improve family support is a highly structured curriculum based on a firm timeline. Previous research has shown that a structured curriculum improves doctoral student success (Ewing, Mathieson, Alexander, & Leafman, 2012; Lloyd, D'Errico, & Bristol, 2016; Rockinson-Szapkiw, et al. 2016) and improves indicators of doctoral student success (Breitenbach, 2019). Perhaps helping students structure their time early in the program, providing an overview of milestones to be accomplished, employing a step-by-step approach to completing a culminating project will assist families in forecasting time commitments and reduce misunderstandings, which may ultimately contribute to doctoral student success.

LIMITATIONS

Several limitations were identified related to the research methods. One limitation was the low response rate (24%), and the fact that the majority of respondents were students who had graduated

from the program. Another limitation was that the survey was administered only to former students for whom an email address was retained in the university database which may have missed students whose email addresses had changed.

Finally, data were self-reported by former students and direct input from family members was not obtained to either support or refute perceptions of the study participants.

RECOMMENDATIONS FOR FUTURE RESEARCH

The current study confirmed what many studies have also reported: family support is important for doctoral student success. However, this study adds to the existing body of research by describing how family members sometimes misunderstand the time commitment required in pursuing a doctoral degree or in the overall value of a doctoral degree. These misunderstandings potentially preclude the family support that doctoral students need to complete their doctoral program. Future research should focus on the effectiveness of interventions designed to educate family about these issues. Post-graduate institutions should expand their efforts to examine the positive and negative effects of family support on doctoral student success.

CONCLUSION

Previous research showed that family has an influence on doctoral student success, but it was unclear how family was defined and how important family is to doctoral student success. This study revealed that family includes not only nuclear family members but friends, coworkers, and student/peer groups as well, indicating social support may come from various sources (Dabney & Tai, 2013). Similar to previous studies (Cohen, 2011; Hlabse et al., 2016; Volkert et al., 2018), family was found to be mostly supportive. Where support was lacking, it reflected a misunderstanding of time commitment and perceptions of the value of a doctoral degree. These findings indicate a need for a curriculum that encourages doctoral students to stay on task (Breitenbach, 2019) and institutions that incorporate support for building family understanding of what the pursuit of a doctoral degree entails. Institutions that re-evaluate what it means to have *family support* from the student perspective, and incorporate that into the doctoral experience, may improve the likelihood of students completing their degree. To help family understand the value of a doctoral degree and the time commitments involved, interventions such as family orientation sessions delivered in an easily accessible format (e.g., video) could help overcome misunderstandings or misperceptions. Finally, research should evaluate the effectiveness of such interventions that are designed and implemented for improving family support.

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APPENDIX

Survey item	Answer options
1. Did you graduate from the DHED program?	1-Yes 2-No
If answer=2 for "Did you graduate from the DHED program?", then 2. Did you withdraw (or were you withdrawn) while you were taking core courses or after you had finished all core courses?	1-While 2-After
3. Gender	1- male 2-female 3-nonbinary 4-prefer not to answer 5-other
4. Age	1-18-24 2-25-34 3-35-44 4-45-54 5-above 54

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<p>5. I identify my ethnicity as (choose all that apply)</p>	<p>1-Asian 2-Black/African 3-Caucasian 4-Hispanic/Latino 5-Native American 6-Pacific Islander 7-Prefer not to answer 8-Other</p>
<p>6. Create a list of people you consider family using a different descriptor for each person (e.g., mother, stepbrother, best friend from college, significant other, spouse, long-time neighbor, gym buddy, etc.) so that you can then answer a series of questions for each family member about how they influenced your completion or non-completion of the DHEd program.</p>	<p><i>(open text field)</i></p>
<p>Referring to your list of family members, enter one family member at a time to answer the following questions. <i>(In the following survey items, each family member the respondent listed was inserted where [family_member] appears)</i></p>	
<p>7. Do you think that your relationship with [family_member] changed (either positively or negatively, and either in the short-term or long-term) because you were working on your doctoral degree?</p>	<p>1-Yes 2-No</p>
<p>8. Please describe how your relationship with [family_member] changed because you were working on your doctoral degree.</p>	<p><i>(open text field)</i></p>
<p>9. To what extent do you think your relationship with [family_member] changed because you were working on your doctoral degree?</p>	<p>1-To a very small extent 2-To a small extent 3-To a moderate extent 4-To a great extent 5-To a very great extent</p>
<p>10. Do you think [family_member] understood what you needed in order to be successful as a doctoral student?</p>	<p>1-Yes 2-No</p>
<p>11. Please explain and give some examples.</p>	<p><i>(open text field)</i></p>
<p>12. To what extent do you think [family_member] understood what you needed in order to be successful as a doctoral student?</p>	<p>1-To a very small extent 2-To a small extent 3-To a moderate extent 4-To a great extent 5-To a very great extent</p>

13. What else do you think the university could have done to help your family support you throughout your doctoral process?	<i>(open text field)</i>
14. What else related to family support or lack of family support was important to you in your doctoral process?	<i>(open text field)</i>

BIOGRAPHIES



Erin Breitenbach is an associate professor and program chair for the Doctor of Health Education (DHEd) and Doctor of Education (EdD) in Health Professions programs in the College of Graduate Health Studies at A.T. Still University. She has chaired dozens of dissertations to completion in the DHEd program. She leads students in completing their doctoral research projects in the EdD program and is responsible for managing curriculum development. Her research interests include online teaching and learning, doctoral program completion, and doctoral program retention strategies.



Josh Bernstein has a PhD in health education and currently serves as an associate professor in the Doctor of Education (EdD) in Health Professions program at A.T. Still University's College of Graduate Health Studies. Dr. Bernstein is a certified health education specialist, a certified wellness specialist, and a health professions research methodologist. His current line of research includes influence of culture on health behavior and health information dissemination, wellness among college populations, online graduate education completion rates, and risk factors for automobile crash morbidity and mortality rates.



Candace Ayars has a PhD in Community Health Sciences and completed a postdoctoral research fellowship at Baylor College of Medicine. She currently serves as assistant professor for the Doctor of Education (EdD) in Health Professions program in the College of Graduate Health Studies at A. T. Still University. Dr. Ayars has over 20 years' experience in the field of chronic disease risk factors combining teaching, research, and public health practice. She specializes in analytic research methodology for both qualitative and quantitative studies. Her research interests include health education program evaluation and primary and secondary prevention of obesity in adults and children.



Lynda Tierney Konecny, DHEd, DHSc, MCHES, is an associate professor at A.T. Still University's College of Graduate Health Studies, has taught doctoral level health education and doctoral level education courses since 2009. She also serves as chair and committee member advising students during their dissertations and doctoral research projects. In addition to her Doctor of Health Education and Doctor of Health Science degrees, she holds Master Certified Health Education Specialist credentials, a Master of Science in Counseling/Student Personnel Services, and a Bachelor of Science in Behavioral Psychology.