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Impact of Mother Being in School on Academic Success of Her Children: A Cross-Sectional Study

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Background/Significance of problem:

Today, many nurses are pursuing higher education (HE) while raising children. However, the pursuit of HE and raising children are both highly demanding tasks that may potentially create imbalance in life, if both roles are assumed simultaneously. This compromises the quality and quantity of time a student mother (SM) may spend with her children. On the other hand, the SM's child (ren) who constantly watch their mother studying (instead of spending time with them) may feel deprived of mother's love and attention. Her child (ren) may even feel jaded towards HE, which is the last thing a mother would ever want. Consequently, at times a SM may feel disheartened, guilty, and ashamed for her inability to spend quality time with her child (aren) when they need her the most. Therefore, the pursuit of HE while raising child (ren) may be a highly stressful endeavor, which may leave a SM wondering "whether the pursuit of her own HE is worthwhile or not ."

Clinical question/project purpose:

A SM may question "how does the pursuit of my own education impact the academic success (AS) of my children?" There was a paucity of evidence in this context, which provided an opportunity to embark upon this phenomenon of interest "Impact of mother being in school on AS of her child (ren)."

Study Objectives:

- Exploring the impact of mother's higher education on academic success of her children
- Enhancing the key-stakeholders' (SMs' universities, faculties, employers, family and community members) cooperation and support in promoting HE for future SMs

Search of literature/best evidence:

CINAHL, ERIC, ProQuest, and PsycINFO health databases from 2012-2017 were searched using key terms: student mother, higher education, academic success, and academic impact. The search produced 17 peer reviewed articles. There were no randomized controlled studies.

Clinical appraisal of literature/best evidence:

Analysis of available evidence suggested four principal findings: 1) maternal role enhances a woman's motivation and persistence in HE, 2) mothers disproportionately balance parenthood 3) there is lack of cooperation from key stake holders (universities, employers, members of families and communities) in promoting HE for SMs, 4) quality-time between parents and children is the most important factor for children's positive behavioral outcomes including AS.

Study Findings:

Data analysis (Chi-Square) revealed that there is a statistically significant (**p=.0061**) relationship between increased maternal education and college success of her children. However, there is no statistically significant ($p= .135$) relationship between increased maternal education and academic success of her children from elementary through high school. The qualitative analysis of this study supported the existing

evidence. For instance, the major themes that emerged based on the analysis of the study participants' responses reinforced the facts that maternal role enhances a woman's motivation and persistence in HE and there is a lack of cooperation from key stake holders in promoting HE for SMs.

Integration into practice:

This study findings demonstrated a statistically significant correlation between increased maternal education and enhanced college success of her child (ren). Hence, the pursuit of HE by SMs is quite worthwhile. Hopefully, this will be encouraging for future SMs especially those who often feel disheartened, ashamed, and guilty for not being able to spend enough time with their children due to their own pursuit of HE. In addition, this finding provides an evidence-based rationale for the key-stakeholders to support HE efforts of future SMs.

Title:

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Keywords:

Academic Success, Higher Education, and Student Mother

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Abstract Summary:

Pursuing higher education (HE) while raising children is the reality of today's many female nurses, which can be highly stressful especially for those with lack of support. This study investigates various aspects of this phenomenon including "how does a mother's pursuit of HE impact the academic success of her child(ren)?"

Content Outline:

Today, many nurses pursue higher education (HE) while raising children. In general, the number of women pursuing HE is constantly on the rise and in the United States women make the majority of the populations in HE.¹ In 2015, 60% of women completed at least some college and 33 % women completed bachelor's degree as compared to 58% men that completed some college and 32% men completed bachelor's degree respectively.² Over 26 % of all undergraduate students are raising dependent children.³ Women make up 71% of all student parents and are disproportionately likely to be balancing college and parenthood.³

Being a mother is a highly joyous experience that also comes with many responsibilities. If a mother pursues HE (which requires significant time commitment) while raising children, it may potentially compromise her children's care. This may lead to undue stress and feelings of guilt in the student mother

(SM). In addition, the SM's children who may feel deprived of their mother's love due to her dedication towards HE, may start feeling jaded towards HE. This may leave a SM questioning "how do my educational goals as a mother impact the academic success of my children?"

Pursuit of HE is a promising solution to many problems. For instance, increased level of education is correlated with higher income, which leads to better quality of life.⁴ As an example, a woman with ninth through twelfth grade education level earned an average annual income of \$16,806 versus women with doctorate degree earned \$82,146 dollars versus women with professional education earned \$103,502.⁴ Unfortunately, despite numerous benefits of HE, pursuing HE is quite challenging especially for women who are usually disproportionately balancing household responsibilities. However, these challenges can be reduced, if the key stakeholders (universities, faculty members, and SM's employers) become fully aware of SMs' unique challenges and thereby facilitate their pursuit of HE.

PURPOSE

All SMs at local, national, and international levels face a variety of concerns related to their inability to spend quality time with their children. One of their potential concerns is "how does their pursuit of HE impact the academic success of their children." There was a huge research gap regarding this phenomenon. Therefore, the purpose of this investigation was twofold: To determine the impact of mother being in school on academic success of her children and; to make key stakeholders aware of unique challenges faced by SMs in pursuing HE and thereby gaining their cooperation in facilitating SMs' pursuit of HE.

LITERATURE REVIEW

Literature review revealed some common themes that served as a foundation of this study. A brief discussion of each theme follows.

Student Mother's Persistence in Higher Education

SM's journey to achieve HE requires a great deal of commitment.⁵ Motherhood enhances a woman's strength-awareness, which improves a SM's commitment and retention in her study courses.⁶ Therefore, the motherhood status seems to help a SM in succeeding at school and thereby serving as great role model for her children.

Student Mother's Motivation to Pursue Higher Education

There are various intrinsic and extrinsic motivators for SMs to pursue HE. Eight top most motivating factors for adult learners in HE included quality of instruction; quality of curriculum; relevance and pragmatism; interactive classrooms and effective management practices or competitive disposition; progressive assessment and timely feedback; self-directness; conducive learning environment; and effective academic advising practices.⁷ Out of these, the management skills and self- directness are the underpinnings of successful motherhood as well, which provide SMs with an advantageous edge as compared to traditional students. Parents' competitive disposition creates a sense of competition among their children as well, which may enhance children's academic success.⁸

Mother Versus Father's Role in Raising Children

Mothers are usually the primary care taker of their children.^{9,10} They also elaborate more on their children's emotions as compared to fathers.¹¹ This can be overwhelming for SMs who are required to meet daunting assignment deadlines and other school and household responsibilities. Unfortunately, this imbalance in shared child rearing responsibility between mother and father can be hindering to SMs' pursuit of HE.

Strategies to Retain Student Mothers in Colleges

Systemic changes, such as on-campus lactation rooms, on-campus child care, and personal connection between faculty members and SMs may help retain SMs in colleges.¹²⁻¹⁵ Other strategies to retain SMs in colleges include high-quality early childhood education centers for their children, because the parents who observe their children thriving in an early childhood program seem to be more motivated in pursuing their own education.¹⁶

Mother's Education and Children's Outcomes

Children's participation in extracurricular activities enhances their school grades.¹⁷ But, SMs may not be available for their children's extracurricular activities. Finding a balance between motherhood and schoolwork is a constant struggle faced by SMs. They need to plan their study times around domestic demands.¹⁸ This may lead to frequent emotional outbursts and potential domestic violence that are negatively correlated with children's academic self-esteem.¹⁹

THEORETICAL FRAMEWORK

Theory of Modeling and Role-Modeling (MRM) provided the theoretical framework for this Project. This theory was developed by Helen Erickson, Evelyn M. Tomlin, and Mary Anne P. Swain, in 1983.²⁰ They derived this theory from nursing practice and it has served as foundation for research, education, and clinical practice in nursing.

In theory of MRM, the concept of "Role Modeling (RM)" plays a central role. In this project, there was a need to understand how much potential a SM possessed to serve as role model for her child (ren), so the children could model SM's behavior of pursuing HE and achieving academic success for themselves. Hence, this project required a clear understanding of the concept of RM in context with mother-child relationship.

RM is a very effective teaching strategy.²¹ However, to be a good role model, one must be ambitious and possess certain qualities, such as regulation, dedication, decisiveness, work commitment, seriousness, endurance, and sustainability.²² Many of these qualities are prerequisites of succeeding at HE as well. Hence, SMs may serve as perfect role models for their children and potentially enhance their children's academic success.

The MRM theory gives nurses three main roles and five goals. Three main roles are: facilitator, nurturer, and unconditional acceptor.²⁰ Five goals are to: build trust, promote positive orientation, promote control, promote strengths, and set mutual health-directed goals.²⁰ Mentioned roles and goals of this theory, are perfectly suited for a mother-child relationship as well. By role modeling facilitation, nurturance, and unconditional acceptance, a SM can build trust with her child (ren) and promote their educational goals or academic success. The "health-directed goals" for patients in this theory, can be compared to "education-directed goals" for SMs' child (ren). To achieve these goals, a SM should begin teaching her child (ren) at an early age until they leave her care.

As per MRM theory, holistic care requires a nurse to view the world through client's eyes (modeling), then care for that client with an awareness of his or her uniqueness (role modeling) (Erickson, Tomlin, & Swain, 1983). Similarly, a SM should identify her children's unique academic learning needs by mechanism of modeling, then role model academic behaviors as per those needs. Therefore, all components of this theory fitted well with the goals of motherhood, which made this theory a perfect fit for the theoretical framework for this project.

METHODS

Study Participants

A convenience sample of 91 SMs who met the study criterion (pursuing HE while having children between the age ranges of 9-30 years) was obtained from different geographic locations in US, Canada, Australia, India, and Philippines. Most of the SMs (except those from India and Philippines) were pursuing nursing education (RN to MSN, BSN to MSN, and MSN to DNP) at various stages (mainly two categories: undergraduate or less and more than undergraduate) at that time. These candidates were easily accessible via social media (Facebook and LinkedIn). They also helped recruit more SMs (who met study criterion) via snowball sampling.

Setting

The SMs came from diverse background including various universities within US and abroad, local churches and communities, and social media (Facebook and LinkedIn). Local personnel facilitated recruitment and provided e-mail addresses of SMs who came from local universities, churches, and communities. The social media facilitated access to a diverse sample of SMs that came from geographically displaced areas within US and abroad.

Measurement

Following the Institutional Review Board's (IRB's) approval, a survey questionnaire (SQ) with embedded informed consent, asking questions about SMs' children's grades (A, B, C, D, or F) and levels of education (high school versus college), whichever applied, was e-mailed to all SMs. The embedded informed consent form clearly stated that the participation in SQ implied SMs' consent to participate in the study. The SQ had a content-validity index (CVI) score of 0.96. A CVI score of >0.80 is acceptable for an instrument to be considered valid and reliable.²³ A total of three reminders (to complete SQ) at four weeks' interval each, were sent to the SMs via same e-mails. The SQ responses were collected for a total of three months.

Design

This project was implemented using a mixed method, non-randomized, cross-sectional design. The SQ was distributed to a convenient sample of 91 SMs, in a non-randomized fashion. The SQ collected demographic data (age, race, ethnicity, type of educational program), qualitative data (open-ended questions exploring SMs' feelings, challenges, experience during schooling), and quantitative data (SM's children's grades).

Data Analysis

The descriptive statistics were used to analyze the demographic data and responses to opened questions of the SQ. The data analysis also included a comparison of grades and degrees among children of mothers with undergraduate or less versus higher than undergraduate degrees. Considering the nominal nature of variables (maternal education level versus children's grades or degrees), Chi-Square test of independence with level of significance (p value) at .05, was used to determine whether there was a statistical significant relationship between these variables.²⁴

Ethical Consideration and Human Subject Protection

Approval of this project was obtained through the IRB of the affiliated university. The SQ included informed consent, which also disclosed the risks and benefits of participation and clearly stated that the SMs' participation was completely voluntary.

Resources, Support, and Cost of Investigation

The required resources included a personal computer (to electronically disseminate SQs) and time (in collecting SMs' e-mail addresses from local personnel, disseminating SQ to SMs, and reminding SMs of completing SQ). The support from local personnel in terms of facilitating access to eligible study participants was considered to be an in-kind donation for this project.

The total cost associated with the implementation of this investigation were minimal. There was no monetary incentive offered to the SMs. The only incentive was to distribute a copy of study findings to each SM participant via same e-mail address that was used to send the SQ.

RESULTS

Data analysis revealed that the relationship between increased maternal education and children's grades at elementary through high school was not statistically significant ($p = .135$; $X^2 = 2.23$; $df = 1$) (Table 1). However, there was a statistically significant relationship between increased maternal education and children's success at achieving college degrees ($p = .006$; $X^2 = 7.49$; $df = 1$) (Table 2). The descriptive analysis of open-ended questions is summarized in Table 3. In addition, the data analysis revealed following themes.

Maternal Role Enhanced Student Mothers' Motivation in Pursuing Higher Education

Most SMs agreed that the motherhood status enhanced their concentration, determination, and time management skills. This in turn helped them succeed in their study programs. Many SMs (especially older ones) acknowledged that their children were their main support system who helped them in various ways including technological and emotional support.

Husbands Played Critical in Facilitating the Pursuit of Higher Education

Majority of SMs mentioned that they would not be able to complete their programs without their spouses' support. The main areas of spousal support included help at house chores, babysitting, and emotional and financial support.

Key Stakeholders' Support was Lacking

Most SMs wished to have more support from key stakeholders (universities, faculty members, and employers). For instance, they wished to have easier enrolment processes, individualized assignment deadlines, promotion of study time at work places, and baby care on campus and at work places. Many SMs also wished for more financial aids from the HE institutions.

Schooling was Deemed Stressful

Almost every SM described schooling as a highly stressful experience from the time of enrolment till the stage they were at during data collection. For instance, difficult admission criteria (especially obtaining old transcripts), technology (submitting applications), and lack of proper guidance from college counselors. Majority of SMs found pursuing HE while having children as stressful. Many of them expressed feelings of constant guilt and shame for not being able to spend quality time with their children. Despite all this, most SMs acknowledged pursuing HE as a worthwhile endeavor and a great way to demonstrate RM for their children.

LIMITATIONS

The project sample comprised of SMs from various geographic locations in the United States and few other countries (Australia, Canada, India, and Philippines). However, the number of SMs from US was significantly as compared to other nations. There is a need for future studies that would include more

global candidates. Also, the majority of SMs came from nursing profession, which limits the generalizability of this study's findings to other disciplines. In addition, the similar study should also be done for student fathers.

RECOMMENDATIONS

Findings of this study clearly demonstrate the benefits of a mother's pursuit of HE. Hopefully, this will reassure the SMs who sometimes may wonder whether their pursuit of HE will create negative academic interest in their children. In addition, the study's findings highlight the need for better cooperation from key-stakeholders, which is an important piece of information in terms of gaining their cooperation in bringing favorable systemic changes for SMs.

CONCLUSION

Finally, in today's competitive world, not pursuing HE is not an option for SMs, especially if it is tied to promising academic outcomes for their children as well. It is extremely important to make key stakeholder (universities, faculty members, and SM's employers) aware of unique challenges faced by SMs and thereby help them achieve their educational goals.

Table 1. Maternal Education and Children's Grades

Children's Grades	Maternal Education Level		Total	Chi-Square	P-Value
	More than UNGD ^a	UNGD ^a or less (N)		Value	
B or greater	114 (74%)	41 (26%)	155	$X^2 = 2.23$	$p = .135$
Less than B	20 (60%)	13 (40%)	33		
Total	134	54	188		

^a UNGD indicated Undergraduation

Table 2. Maternal Education and Children' College Degrees

Children's Education Level	Maternal Education Level		Total	Chi-Square	p-Value
	More than UNGD ^a	UNGD ^a or less (N)		Value	
High School	46 (68%)	22 (32%)	68	$X^2 = 7.49$	$P = .006$
College	38 (90%)	4 (10%)	42		
Total	84	26	110		

^a UNGD indicated Undergraduation

Table 3. Student Mother Demographics and Questionnaire Ratings

Age Range	21 – 30: 3.33%	31-40:	41-50:	51-60:	61-70:

Ethnicity	Caucasian	32.22%	African American	45.56%	American Indian	15.56%	3.33%	
	88%	4.4%	Hispanic	3.3%	1.1%	4.4%		
Employment status	Currently Employed	95.56%	Currently Unemployed	4.44%				
Socio-economic status	Upper Middle Class	24.72%	Middle Class	67.42%	Lower Middle Class			
Marital status	Married	84.62%	Single	2.2%	Divorced	7.87%	8.79%	
					Separated	3.3%	Widowed	1.1%
Types of HE ^a program	Online	46.59%	On-Campus	18.18%	Hybrid	35.23%		
Types of universities attended	Public	91.01%	Private	8.99%				
Main motivation to pursue HE ^a	Better Job Opportunities	42.22%	Financial Incentives	13.33%	Self-Development	31.11%	Other	13.33%
SMs' ^b perception of impact of their HE ^a on their child(ren)'s academic success	Felt to be a positive influence	86.59%	Felt to be a negative influence	13.41%	Stressful	74.44%		
SMs' perception of impact of their pursuit of HE ^a on Non-academic areas of their child(ren)'s lives	Positive	51.25%	Negative	48.75%				
Overall experience of pursuing HE ^a during motherhood	Rewarding	16.67%	Pleasant	8.89%				
SMs' ^b perception of their role as a mother while pursuing HE ^a	Mostly a Facilitator	75.61%	Mostly a Barrier	24.39%				

SMs' ^b perception of their spouse's role during pursuit of HE ^a	Supportive 84.71%	Non-Supportive 15.29%
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^a Indicates Higher Education.

^b Indicated Student Mother.

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