BEYOND THE DOUBLE TAP: EXPLORING THE IMPACT OF AN EDUCATIONAL INSTAGRAM ACCOUNT ON PROFESSIONAL SELF-EFFICACY AMONG MINORITY NURSE ANESTHESIA STUDENTS

by

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Abstract

A lack of diversity currently exists with regard to student enrollment in nursing programs in the United States. This has greatly impacted the current nursing workforce. Literature review findings indicate that little is known regarding the use of social media, specifically Instagram, as a means for promoting recruitment and professional self-efficacy among current and prospective minority nurse anesthesia students. This project aimed to investigate the impact of an educational Instagram account and outline the views of minority nurse anesthesia students. The secondary aim was to explore barriers to nurse anesthesia education and identify recruitment strategies for anesthesia programs. Bandura’s Social Cognitive Theory of self-efficacy served as the theoretical underpinning. This mixed-methods sequential explanatory project incorporated an anonymous online survey with qualitative content analysis. A convenience sample of 96 Instagram users were surveyed and 16 were asked to participate in virtual semi-structured interviews. Eighty-eight percent of respondents reported using Instagram several times a day, with 91% believing it is a good source of motivation. Thematic analysis under Braun and Clarke’s approach revealed that participants engaged in social media to see others with a similar background. Instagram may be a useful strategy to build minority students’ self-efficacy and increase professional socialization. The findings suggest Instagram is an important tool by which students can engage in to support their learning, self-efficacy and eliminate barriers to graduate education in nurse anesthesia. This may in part impact interest in nurse anesthesia and aid in the development of guidelines to enhance graduate education and recruitment.

Keywords: nurse anesthesia, diversity, social media, self-efficacy, resilience, nursing students
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Beyond the Double Tap: Exploring the Impact of an Educational Instagram Account on Professional Self-Efficacy among Minority Nurse Anesthesia Students

As the nation shifts to a majority-minority plurality nation, there will be an increased need for the healthcare workforce to reflect this diversification and enhanced cultural competence (U.S. Census Bureau, 2015). According to the U.S. Census Bureau (2015), 19% of the nursing workforce are from minority backgrounds. The National Sample Survey of Registered Nurses (NSSRN) revealed that in the United States (U.S.), 83% of registered nurses are White/Caucasian, 6% are African American, 6% are Asian, 3% are Hispanic, 1% are American Indian/Alaskan Native, 1% Native Hawaiian/Pacific Islander and 1% identified as other (Budden, Zhong, Moulton & Cimiotti, 2013). Specifically, in the field of nurse anesthesia, only 11% of underrepresented minorities are in practice (American Association of Nurse Anesthetists [AANA], 2018).

The Sullivan Commission on Diversity in the Healthcare Workforce (2004), considered the current lack of diversity of among healthcare professionals an important health disparity element. Cultural competence has been shown to improve overall patient experiences, especially in the minority population (Weech-Maldonado et al., 2012). Race and ethnic diversity is described as organizational cultural competence and is associated with improved quality of healthcare received by minority populations (Jackson & Gracia, 2014).

Many health care organizations have committed to increasing diversity. Founded by Dr. Lena Gould, Diversity CRNA (Certified Registered Nurse Anesthetist) provides mentorship through nursing school tours, CRNA information sessions, and airway simulation workshops (DiversityCRNA, 2019). This organization is the only comprehensive mentorship program for prospective CRNA students in the U.S.
The AANA (2018), the professional association representing nearly 53,000 CRNAs and student registered nurse anesthetists (SRNAs) nationwide, reported that only 11% of underrepresented minorities are in practice. The AANA’s (2018) five core values of quality, professionalism, service, collaboration and diversity and inclusion, support the need to promote workforce diversity among practicing CRNAs to better reflect the society that it serves. In addition, the Institute of Medicine (IOM, 2019), recommended doubling the number of nurses with doctoral degrees by 2020 with a focus on increasing diversity. In order to continue to provide high quality anesthesia care to a diverse nation, there is an increased need for cultural competence in meeting patient care standards such as obtaining informed consent, formulating patient-specific plans of care, and respecting the basic rights of patients (Wright, 2008).

**Statement of Purpose**

The purpose of this Doctor of Nursing Practice (DNP) project is to examine the impact of an educational based nurse anesthesia Instagram account on professional self-efficacy among current and prospective minority nurse anesthesia students. Examining this relationship is integral to providing insight into potential barriers that may influence and impact the lack of diversity in the field of nurse anesthesia as well as aiding the development of online resources that can enhance graduate minority CRNA education and workforce recruitment and retention. Findings resulting from this project will be utilized to provide the University at Buffalo’s School of Nursing’s (UBSON) Graduate Student Services department with a social media resource that can be used to promote increased resilience, self-efficacy and understanding of the roles and responsibilities of a CRNA among current minority SRNA students as a recruitment strategy as well as to refine educational based needs promoting professional self-efficacy on the current
Instagram site. Implementing projects such as this can help change the culture of the profession and provide prospective and current students better insight into the field of nurse anesthesia.

**Specific Aims**

The specific aims of this project were to:

1. Evaluate the impact of an educational Instagram account on the self-efficacy of minority SRNA students by exploring their perception of self-efficacy and what is needed to promote self-efficacy;
2. Explore barriers to nurse anesthesia education as perceived by current and prospective SRNAs; and
3. Explore minority recruitment strategies for graduate nurse anesthesia programs from the perspective of current and prospective SRNAs.

**DNP Capstone Project Question**

In current and prospective minority nurse anesthesia students aged 18 – 35 in the U.S., how does interaction with an educational Instagram account impact professional self-efficacy?

**Background and Significance**

**Barriers to Success**

The diversity shortage cannot be addressed without understanding the barriers to success for minority undergraduate and graduate nursing students. Loftin et al. (2012) identified several existing barriers of minority nursing students including the lack of financial support, inadequate social and emotional support and professional socialization. Despite these barriers, Loftin et al. (2012) identified an additional theme in eight of the reviewed studies. This theme was identified as a resolve to succeed in spite of the barriers presented. According to the authors, the resolve to succeed encompasses resilience, persistence, self-motivation and determination (Loftin et al.,
2012). This resolve to succeed allowed minorities to “persevere in spite of feeling isolated,” to “remain steadfast to educational goal[s] despite overwhelming trials,” and to utilize the “absence of minority faculty [to] serve as a catalyst and motivational factor to succeed in the nursing program” (Loftin et al., 2012, p. 7).

Resilience has been defined as “successful adaptation of life tasks in the face of social disadvantage or high adverse conditions” (Garmezy, 1993). It is this resilience that Pajares (1996) connected to self-efficacy:

Efficacy beliefs help determine how much effort people will expend on an activity, how long they will persevere when confronting obstacles and how resilient they will prove in the face of adverse situations. The higher the sense of efficacy, the greater the effort, persistence and resilience. (p. 544)

Self-efficacy is related to motivation, as academic attainment is largely determined through self-motivating influences. As defined by Bandura (1994), perceived self-efficacy is one’s belief in their capability to produce effect. Having a strong sense of self-efficacy allows one to embrace challenges rather than seeing challenges as a threat (Bandura, 1994). Those that doubt their capabilities have low self-efficacy, low aspirations and have an inability to commit to overcome challenges (Bandura, 1994). However, one’s beliefs in their capabilities can be developed through various sources and this development of self-efficacy affects several psychological cognitive processes.

**Self-Efficacy and Inequalities**

While self-efficacy can facilitate success, there are racial and ethnic disparities that have historically presented themselves in the U.S. educational system (Peguero & Shaffer, 2010). Ethnic and racial minorities tend to have lower test scores, educational resources and increased
dropout rates (Peguero & Shaffer, 2010). In general, racial and ethnic minorities appear to have lower levels of perceived self-efficacy (Peguero & Shaffer, 2010). It is this underlying premise that supports the need to increase self-efficacy in minority students.

**Resolve to Succeed Via Social Media**

Social media enhances connectivity, communication and is utilized greatly by nursing students (Price et al., 2018). Social media use is becoming more prevalent in the lives of students from elementary to graduate school (Lenhart, Purcell, Smith & Zickuhr, 2010). While social media has shown to be an effective platform for nursing educators to expand beyond the traditional classroom, there is a paucity of literature surrounding how social media can impact other aspects of education such as self-efficacy (Schmitt, Sims-Giddens & Booth, 2012).

This DNP capstone project was implemented to explore *resolve to succeed*, or resilience, among current and prospective SRNAs through use of an educational Instagram account created for the purpose of increasing self-efficacy via social media instead of traditional formal face-to-face mentoring and pipeline programs.

**Theoretical Framework**

**Bandura’s Social Cognitive Theory**

Bandura’s Social Cognitive Theory was utilized as the theoretical framework for this project. Self-efficacy is a component of Bandura’s (1993) social cognitive theory and is defined by Bandura as one’s belief in one’s ability to succeed in a specific situation or task. Self-efficacy beliefs are not competencies, predictions about behaviors, intentions, outcome expectancies, perceived control, self-esteem or a trait (Leary & Tangney, 2012). It is people’s beliefs of personal control and agency (Leary & Tangney, 2012).
Self-efficacy has been shown to be a strong predictor of increased academic performance, as well as student retention (Black, Hall & Darmawan, 2007). According to Bandura (1993), students with low self-efficacy tend to avoid situations that have led to failure in the past. This can lead to academic and educational demise. In his earlier writings, Bandura (1977), described four sources of self-efficacy expectations: performance accomplishments or mastery expectations, vicarious experience, verbal persuasion and emotional arousal. The following describes Bandura’s four sources of self-efficacy and outlines the associated cognitive processes in detail for the purpose of this project.

**Performance accomplishments.** Performance accomplishments is a concept centered on what Bandura (1977) described as personal mastery experiences. Mastery experiences is the most effective way to build self-efficacy (Bandura, 1977, 1993). Experiencing success inherently raises self-efficacy through mastery expectations while failures tend to lower self-efficacy. When one experiences continued success, the random failure can be then influenced by persistence, since it has been previously determined that increased effort increases success (Bandura, 1977). Once an individual has achieved an enhanced perception of self-efficacy, this can then be applied to other circumstances regardless of whether they are related (Bandura, 1977). However, if failures occur when a strong sense self-efficacy has not been previously established, this can have more detrimental effects to their self-efficacy and lower it (Bandura, 1977). An additional aspect of this construct is modeling or displaying an activity so that the participant can see it be performed successfully. Modeling a behavior has the ability to translate a conception of behavior into an action that can further perfect one’s skill (Bandura, 1977). According to Bandura (1993), performance accomplishments are the most influential because they provide the most authentic evidence to prove one can do what it takes to succeed.
**Vicarious experience.** In addition to performance accomplishments and mastery experiences, vicarious experiences also affect the development of self-efficacy (Bandura, 1977). Bandura (1977) stated:

Seeing others perform threatening activities without adverse consequences can generate expectations in observers that they too will improve if they intensify and persist in their efforts. They persuade themselves that if others can do it, they should be able to achieve at least some improvement in performance. (p. 197)

It is important to note that vicarious experiences affect behavior more when the activity observed is met with success rather than one that is ambiguous (Bandura, 1977). Vicarious experiences can be provided by social models. These models can be a source of “inspiration, competence and motivation” (Bandura, 2004, p.78). Seeing people that are similar to oneself succeed in a particular activity through their efforts enhances the observers’ beliefs that they too can achieve and succeed in comparable activities. In contrast, observing others’ failures can cause one to develop doubts in their own self-efficacy (Bandura, 2004).

The impact of this modeling is greatly influenced by the similarities one has with the social model (Bandura, 1993). The greater the similarity that is perceived, the more persuasive the social model is on the observer’s effort and perceived self-efficacy. If observers are unable to find likenesses with the social model, the effects of their vicarious experiences are not as influential (Bandura, 1993).

**Verbal persuasion.** Verbal persuasion is a widely used construct to alter behavior. Verbal persuasion is not aimed at enhancing self-efficacy directly, but rather raising one’s expectations. Bandura (1977) advised that verbal persuasion has limitations in terms of providing lasting self-efficacy. Verbal persuasion alone is not enough to instill high beliefs of
perceived self-efficacy especially if the verbal persuasion is unrealistic. This causes a faux
confirmation which then leads to disappointment (Bandura, 1993). In individuals who have been
constantly persuaded that they are deficient, avoidance of challenging activities undermines their
motivation and forms its own behavioral validation through success of less challenging tasks
(Bandura, 1993). When combined with other sources of self-efficacy, those that are verbally
persuaded as well as provided with mastery experiences are more likely to contribute more of an
effort towards a given task (Bandura, 1977).

**Emotional arousal.** Bandura’s (1977) last source of self-efficacy, emotional arousal, is
centered on how stressful situations affect personal aptitude. This is the physiological feedback
that you receive from your body when performing a task. This source is based upon the fact that
when one is stressed, performance is expected to decline. Associating this with performance,
high stress leads to feelings of vulnerability. When one is not in a stressful situation, one is more
likely to anticipate success (Bandura, 1977). Mood can also have an influence on perceived self-
efficacy. A positive mood increases self-efficacy while a negative mood decreases it (Bandura,
2004). According to Bandura (1977), emotional arousal can be effectively diminished through
participant modeling. Individuals who possess a higher perceived self-efficacy tend to view their
emotional arousal states as a facilitator to good performance, where those that have lower self-
efficacy view it as an encumbrance (Bandura, 1993).

**Cognitive Processes**

Perceived self-efficacy also effects cognitive processes. Purposive human behavior is
controlled by goals that have been previously thought about (Bandura, 1993). According to
Bandura (1993), setting a goal is influenced by self-appraisal of capabilities. Having stronger
self-efficacy equates to setting the bar of achievements higher and in turn relates to a stronger
commitment to those goals (Bandura, 1993). In thought, where courses of action originate, the level of self-efficacy is shaped by the scenarios that are constructed (Bandura 1993). Success scenarios are visualized by those with high self-efficacy while those with lower self-efficacy dwell on potential failures and possess high levels of self-doubt. Bandura (1993) explains that remaining task oriented during stressful situations requires a high level of self-efficacy.

Social comparison influences are also important as many activities themselves don’t provide a standard to assess one’s ability. Therefore, people rely on the assessment of their capabilities in relation to the achievements of others (Bandura, 1993). This is relevant to academic work as students receive grades which are reflective of their capabilities. Comparative evaluations of this nature carry high efficacy implications. Bandura and Jourden (1991) conducted research that concluded seeing oneself surpassed by others undermined personal efficacy and eventually impaired their performance. In contrast, succeeding enhanced personal efficacy (Bandura & Jourden, 1991).

Motivational Processes

Self-efficacy also plays an important role in motivation which is also a cognitive generated process (Bandura, 1991). Through anticipation, people motivate themselves and guide their actions to form a belief about what they can and can’t do (Bandura, 1993). Bandura described three forms of cognitive motivators: casual attributions, outcome expectations and cognized goals which are related to the following theories: attribution theory, expectancy-value theory and goal theory respectively (Bandura, 1993).

Casual Attributions. Casual attributions or explanations of events can influence self-efficacy and vice versa. Beliefs about competencies can influence explanations of success or failure and by contrast, explanations of success or failure will influence perception of
competence (Leary & Tangney, 2012). Those that have high self-efficacy tend to attribute failures to a lack of effort rather than lack of ability which is the case for those that have low-self efficacy who also attribute failures to external factors (Leary & Tangney, 2012).

**Expectancy-value theory.** In expectancy-value theory, which is associated with outcome expectations, this is guided by the premise that motivation is directed by the expectations of the outcome that a particular behavior has and the value of those outcomes (Bandura, 1993). Therefore, the motivating factor behind outcome expectancies is also directed by self-beliefs of one’s capability. Although people may be offered opportunities, if they feel as if they lack the capability for that opportunity then they do not pursue it (Bandura, 1993).

**Goal theory.** This theory describes goals being the operative factor of self-influenced motivation in the present, not future (Bandura, 1993). Through this cognitive process, making challenging goals helps to enhance motivation (Bandura, 1993). People tend to create incentives for themselves as a way to increase their efforts to achieve a particular goal. Self-satisfaction from completion helps sustain performances (Bandura, 1993).

**Affective Processes**

Affective processes are the “emotional mediator” of self-efficacy belief (Bandura, 1993, p.132). Having the ability to control stressors provides the individual with the capability to not have negative thoughts. Those who believe that they cannot manage their stressors appropriately suffer from higher anxiety, dwell on their deficiencies and impair their functioning (Bandura, 1993).

**Selection Processes**

Selection processes are selections of environments people make. Perceived self-efficacy also plays a role in influencing the choice of people’s activities (Bandura, 1993).
environments people are comfortable in, they readily undertake challenging activities while avoiding an environment that exceeds their personal coping capabilities (Bandura, 1993). Bandura (1993) explains that the influences on choice behavior can have extreme effects on personal development due to social influences that promote certain competencies will have long lasting effects.

Justification of Framework

For the purpose of this project, emphasis will be placed on social modeling via vicarious experiences. An influencer promotes social and personal change through the transmission of knowledge, values, cognitive skills and new styles of behavior (Bandura, 2004). Individuals who observes a model’s behavior are able to reflect their experiences to develop “coping efficacy” (Bandura, 2004, p.79). Lastly, people’s social constructs are reliant on what they “see, hear, and read” rather than on they experience directly (Bandura, 2004, p.79). Social networking can provide sources of self-efficacy that can serve as an example for students and increase their aspirational professional goals.

Specific to Instagram, performance accomplishments occur directly. An example of this construct in relation to social media is when a prospective student is applying for CRNA school. If the individual scored well on their Graduate Record Examination (GRE) and has a competitive grade point average (GPA), they are more likely to feel confident and have high self-efficacy when they enter into school and are challenged. On the contrary, if the individual experiences failure, such as not obtaining admission to CRNA school, they will likely experience a reduction in self-efficacy. If their failure is overcome by conviction and they are eventually accepted, this can serve to increase self-motivated persistence when the situation is viewed as an achievable challenge.
A social model is similar to an Instagram influencer – one that can persuade others through trustworthiness and authenticity. Vicarious experiences are evidenced by sharing successes online. Observing a person experiencing successes, and the random failure but continuing to show commitment to goals can increase the observer’s self-efficacy. For example, sharing an experience with day-today activities or a challenging anesthetic, but still having success allows the observer who has similar goals to view the modeled behavior and raise their self-efficacy. A decrease in self-efficacy can occur if challenges are not overcome. For example, not completing CRNA school and dropping out. Those that observe that behavior may worry about their own chances of success which then can lead to low self-efficacy.

Through Instagram stories, or in the caption of a photo, the concept of verbal persuasion of the social cognitive theory can be demonstrated. Through sharing successes, failures and providing inspiration and having relatability, these aspects are critical in impacting self-efficacy beliefs. One that exemplifies what observers are attempting to obtain serves as the credible source. A negative example of verbal persuasion that can occur via social media are what are termed “negative echo chambers.” On online forums, there can be a lot of negative discussions surrounding CRNA school. Seeing only one viewpoint that is centered around failure can lead to doubts.

Bandura’s Social Cognitive theory of self-efficacy also be applied to vocational choices. Individuals who believe that they can perform skills required for a particular job are more likely to believe those specific behaviors will subsequently lead to success (Leary & Tangney, 2012). Those that have low self-efficacy will be less likely to pursue a job that they don’t believe that they can be successful in which in turn limits their future opportunities (Leary & Tangney, 2012).
Review of Current Literature

A focused literature review was conducted to explore the use of Instagram as a means of promoting and its effect on self-efficacy among prospective and enrolled underrepresented minority nurse anesthesia students. Findings revealed that a lack of evidence exists in current health related literature addressing utilization of social media to promote self-efficacy among minority nursing students. Electronic databases searched included the Cumulative Index of Nursing and Allied Health Literature (CINAHL), EBSCOhost and ScienceDirect. Various evidence-based studies were collected and subsequently reviewed. The following keywords were used both singularly and in multiple combinations: minority, student, professional, diversity, self-efficacy, resilience, motivation and determination combined with social media, social networking, Instagram, nursing and mentorship. The inclusion criteria included: 1) studies published in the English language; 2) studies published between 2008 – 2019; 3) studies published in peer-reviewed journals; 4) observational or experimental design and 5) Use of social media (Instagram, Twitter or Facebook). The exclusion criteria included: 1) review papers and dissertations; only references listed in review papers and dissertations were screened to find more primary data sources; 2) elementary and high school interventions utilizing social media; 3) studies utilizing YouTube as an intervention and 4) studies published among non-health or non-science related majors.

In a mixed-methods study, Tower, Latimer and Hewitt (2013) examined the nursing students’ perception of self-efficacy of using Facebook as a tool to support study. They studied 373 Bachelor of Nursing students in Australia who were invited to form a Facebook group. The students described the group as being an innovative way to support their study and a useful method of engaging with academics (Tower et al., 2013). The students also reported that using
the Facebook group allowed them to engage in peer learning. They also felt better prepared and it assisted them in increasing their self-efficacy to achieving a sense of mastery (Tower et al., 2013).

Tower, Blacklock, Watson, Heffernan and Tronoff (2015), conducted a study utilizing social media to enhance self-efficacy among sophomore nursing students via a peer forum on Facebook. One hundred and ninety-eight sophomore students enrolled in the forum to discuss a specific class. Five key categories were identified: managing confusion, managing stress, seeking clarification, information sharing and building sense of community (Tower et al., 2015). Students modelled the behaviors from interacting with others online and developed a stronger sense of success (Tower et al., 2015). The peer interaction allowed students to ask questions, seek clarification and provided them with the necessary motivation to succeed. The authors did not directly measure student level of self-efficacy.

A study conducted by Duke et al. (2017) examined social media use in nursing education among students compared to faculty members. Seventy-nine percent of nursing students surveyed spent greater than 1 hour per day on social media compared to 37.9% of faculty (Duke et al., 2017). Over 50% of students utilized social media for educational purposes while only 25% of faculty members utilized social media for educational purposes. The authors concluded that a slight generational difference existed that can be a barrier to implementing faculty-led educational interventions via social media. Study findings additionally revealed a high reported usage of social media by students for educational purposes (Duke et al., 2017).

Price et al. (2018) explored first year nursing student use of social media within education. Employing a descriptive cross-sectional technique surveying 121 nursing students, the authors found that social media was an engaging way to promote discussion and share
information. Study findings additionally showed that 77.7% of participants used Facebook most days, followed by Instagram at 33.9% and Twitter at 12.4% (Price et al., 2018). Students were asked if the School of Nursing should develop its use of social media, and 65.5% of the respondents said ‘yes’ (Price et al., 2018). In terms of their perception of social media and its use in nursing education, 47.1% of students perceived social media as ‘very beneficial’ to increase awareness of nursing issues, 36.4% said it ‘increased confidence’ in sharing ideas and expanded knowledge, 78.5% (Price et al., 2018).

Watson, Cooke and Walker (2015) examined nursing students experiences of Facebook as an adjunct to an on-campus course. A hermeneutic phenomenological approach was used, and in-depth interviews were performed to obtain perceptions of the impact the Facebook group had on nursing student’s skill development. A closed Facebook group was instituted and a total of 10 students were interviewed. Several themes emerged such as “we’re all in this together”; ‘I can do this’; and ‘this is about my future goals in success.’ Findings suggest that the Facebook group enhanced the student’s social connectedness and sense of belonging. Although students encountered challenges, engagement in the Facebook group raised their confidence (Watson et al., 2015). It also served as a bridge to face-to-face socialization.

McLaughlin, Moutray, and Muldoon (2007) studied the occupational self-efficacy of 350 nursing students to examine the role personality and self-efficacy plays in predicting academic performance and attrition. Occupational self-efficacy of students was shown to be a significant predictor of student’s final marks and extraversion was shown to negatively predict academic performance (McLaughlin et al., 2007). The authors suggest that the traditional training model of nursing may not be well-adapted to increase self-efficacy and possibly decrease self-confidence in students (McLaughlin et al., 2007). In the discussion, the authors also proposed to
encourage more students who have recently completed a rotation to discuss their experiences with prospective students. Through this integration, the students who have successfully completed that rotation would provide an excellent model of performance. The “succeed thinking,” “if they can do it, I can do it” can then raise self-efficacy (McLaughlin et al., 2007).

Warshawski, Bar-Lev and Barnoy (2019) explored the associations between test anxiety, academic self-efficacy and social support from social media of fourth year nursing students in Israel (n= 240). In this cross-sectional, descriptive design, the authors found that higher academic self-efficacy support through social media was related to lower test anxiety (Warshawski et al., 2019). This study used Facebook and WhatsApp to survey the social media use. The findings were consistent with other studies that found nursing students used social media as a resource and support (Warshawski, et al., 2019). The authors concluded that social media is an important educational tool that can not only increase academic self-efficacy but also reduce test anxiety (Warshawski et al., 2019).

Another study, conducted by Sigalit, Sivia and Michal (2017), looked at the associations between students’ personal and group resilience to their utilization of social networking platforms and communication skills. In 149 second year nursing students in Israel, the authors measured their social media use of five common platforms – Facebook, WhatsApp, Twitter, Instagram and discussion groups. In addition, they also measured their resilience and disseminated a clinical placement questionnaire that asked to rank what extent the student was able to utilize skills in a communication course. Results showed that social media use was related to resilience and to the perceived helpfulness of the communication course (Sigalit et al., 2017). Having strong social ties enhanced the development of personal and group resilience
among the nursing students supporting the integration of social media technologies in the nursing curriculum (Sigalit et al., 2017).

**Methods**

**Instagram Account**

A free Instagram (IG) business account with the following username, *iamnursenelle* was created by the project author in July of 2017. Instagram is a free social media platform that can be accessed via smart mobile devices such as an android or iPhone. Instagram can also be accessed via web browser at no cost and has several options for posting content. IG posts can be an image(s) or video(s) that are uploaded to the users Instagram account page. Hashtags, a word or phrase preceded with a hashtag symbol: # is used for users to search and find topics that are of interest. For example, a nurse interested in CRNA school may follow the hashtag, #CRNA and will be updated with posts that utilize this hashtag.

Instagram posts are permanent unless the user chooses to delete them. Instagram users can ‘like’ the post by double-tapping on the image, they can also add a comment on the post to interact or by sharing the post to other users. Instagram “stories” is a way to upload an image or a series of videos that are limited to 15 seconds long each. After 24 hours, the story automatically disappears unless the user deletes it before that time frame. Users have the ability to ask questions via Instagram stories and to poll users that see the story. In addition, Instagram highlights is a way to permanently save a story that is featured on the top of the account (Figure 1).

The project author’s Instagram page, *iamnursenelle*, contains posts, stories and highlights that are uploaded about class, studying, what a CRNA is, how to get into CRNA school, clinical rotations, as well as educational concepts and motivational posts. The author uses the following
Design

A mixed-methods sequential explanatory approach was used for this project in quantitative and qualitative stages. Conducted from November 2018 to December 2018, the first phase employed a cross-sectional study design, which was followed by a qualitative content analysis guided by Braun and Clarke's (2006) thematic analysis method. The use of both methods was to obtain a broader understanding of the issues. Gaining different perspectives enhances the rigor of the research and is known as data triangulation (Rose & Webb, 1997). Rather than giving greater accuracy, the use of triangulation through a multi-modal approach adds range to the final analysis (Rose & Webb, 1997).

Setting

The study setting was performed in a public and private online environment. The Instagram account owned by the project author, iammnurseselle had over 4,800 followers, or users who choose to follow the account at the time of the project. Eighty-one percent of the followers on the account are between 18 and 35 years old. Eighty-eight percent of the followers are located in the U.S. The remaining followers are from a variety of countries including Brazil, Canada, Nigeria and United Arab Emirates. To conduct the focus groups, the setting was a private virtual environment in which participants were given a distinct URL and meeting identification to have access to the virtual focus group environment through Zoom Video Conferencing Software.

Sample and Recruitment Strategy

Following UB Institutional Review Board Study approval (Appendix A), a recruitment
video (Appendix B) was posted on the iamnursenelle Instagram page inviting minority nurses who met the inclusion criteria to participate in the online survey. A convenience sample of male and female underrepresented minority prospective and current SRNA’s aged 18-35 were recruited via the iamnursenelle Instagram page. The project author was available via direct messaging (DM) or e-mail to answer any questions potential participants had.

The invitation advised that the survey was open to prospective and current students who identified with an underrepresented minority group. An underrepresented minority was defined as one who belongs to the following ethnic group(s): African American, Asian, Hispanic, American Indian/Alaskan Native, Native Hawaiian/Pacific Islander and Other. Ninety-eight students completed the survey yielding an 88% completion rate, producing a final sample size of 96 for the final analysis.

**Eligibility Criteria.** Inclusion criteria was as follows: (1) U.S. residency; (2) current enrollment in a CRNA program as a SRNA student; (3) consideration of enrollment as a SRNA student in a CRNA program; (4) active “following” of the iamnursenelle Instagram account; (5) having exposure to either an iamnursenelle Instagram story or post; and (6) being an underrepresented minority. Current students were included in this project because prospective students actively applying to CRNA school may be accepted and the project author believes that these students should not be excluded if they have recently been accepted to CRNA school.

**Protection of Human Subjects and Ethical Issues.** Institutional Review Board (IRB) approval at the University at Buffalo (UB) was obtained prior to project implementation. Standard consent was distributed to the participants prior to beginning the survey via survey monkey. In addition, the clause for privacy and confidentiality for Survey Monkey and Zoom was included. Participants were informed that their participation is voluntary. All demographic,
identifiable data and e-mail addresses obtained were kept confidential and they were informed of the right to withdraw from the study at any time.

UB IRB protocol for storing and deleting data was followed. De-identified interview transcripts, video and audio will be stored in password protected electronic files on a password protected laptop. All data will be kept for three years then will be destroyed. After completion of the project, data stored in the Survey Monkey server was purged and deleted. In the consent, participants were also informed that it is not possible to completely guarantee the confidentiality of the participants information while it is in the process of being sent electronically. Usernames and passwords of the participants’ Instagram accounts were not be collected. The study involved no more than minimal risk to participants.

**Data Collection and Analysis**

**Phase 1 Quantitative: Self-reported measures.** An anonymous online survey (Appendix C), was distributed to Instagram followers of the iamnursenelle account via Survey Monkey, a secure web-based online questionnaire tool. The survey was open for one week following the Instagram recruitment post and daily reminders were posted via Instagram Story every other day. The survey was available to be taken from any public, private or personal computer or mobile device. Anonymity was achieved through the blocking of IP addresses. Those submitting their email addresses to participate in the focus group were notified in the consent that their responses may no longer be anonymous. In the Instagram post, potential participants were given information about the study, inclusion criteria and given instructions on how to take the survey. Students wishing to participate were asked to access a Survey Monkey website link included in the project author’s Instagram bio. Instructions for completing the online survey were included in a standardized introduction attached to the survey (Appendix D).
Analysis from the survey indicated that it took on average, approximately six minutes to complete. A standardized electronic consent to participate was obtained prior to the beginning of the survey.

Demographic information was obtained including age, ethnicity, nursing experience, educational status and approximate hours of social media use and for what purpose. To capture participants views of three domains – social media, diversity and self-efficacy, 18 content questions using a 6-point scale (strongly agree, agree, neutral, disagree, strongly disagree and N/A) was used. The six-point scale was chosen to measure the attitudes of participants concerning their use of Instagram, the iammursenelle page and their confidence in their abilities. Self-efficacy was defined on the survey as the belief in one’s ability to succeed in a specific situation or task. It was referred to as “your confidence in your abilities” on the survey to prevent confusion.

Upon completion of the survey, data was exported into Microsoft Excel and coded. The data was then imported into IBM SPSS Statistics version 25. A Pearson product-moment correlation coefficient (also referred to as Pearson’s r) was computed to examine the relationships among the Likert-scale variables. Percentage agreement for each content question was also calculated.

**Phase 2 Qualitative: Virtual focus groups.** Students who participated in the online survey were invited to attend a virtual focus group via Zoom video conferencing software. Online videoconferencing was chosen as the vehicle for the focus groups as they allow for an interview that closely resembles face-to-face communication including nonverbal signals. As a new method, Jaccard and Jacoby (2010) suggested a theoretical model, the E-Interview Research Framework that guided the steps of the online interviews. This framework includes eight
categories that are integral to the analysis of the design: Aligning purpose and design, choosing e-interviews for study, handling sampling and recruiting, positioning the researcher, determining e-interview styles, selecting information and communication technology (ICT) and milieu, conducting the interview and addressing ethical issues (Jaccard & Jacoby, 2010).

A total of 72 students selected ‘yes’ confirming their interest in participating in a focus group. Six time slots were offered during varying times of the day to participants. Groups were split into prospective students and current students. Of these 72 students, a total of 16 participants signed up to participate in a focus group. The minimum number of participants in each focus group was two and this yielded a total of five focus groups.

In the semi-structured interviews with open-ended questions (Appendix E), participants were asked to provide feedback about their uses of Instagram, if it has helped them understand the field of nurse anesthesia, and to express ways in which they felt the iamnursenelle account did or did not enhance content understanding and of the profession. In addition, focus group members were asked additional probing open-ended questions about their barriers to success. Prior to beginning, participants were informed of the purpose of the focus group, how to maintain and protect their confidentiality and their right to refuse to answer any question (Appendix F). Participants had the ability to connect their camera, call-in or participate with audio only. All focused groups were recorded via Zoom video conferencing software and were utilized for analysis. A total of 16 students participated in this part of the study. All five focus groups sessions lasted an average of one hour and 30 minutes.

**Thematic analysis.** Thematic analysis for this project was guided by Braun and Clarke’s (2006) thematic analysis method. A theoretical thematic analysis was conducted. This analysis was driven by the areas of the project question to provide a more detailed deductive analysis of
the preconceived frames at a latent level. The thematic analysis involved searching across the data to identify patterns. Analyzing themes at a latent level exceeds the semantic or surface meaning of the data and further identifies their underlying meanings (Braun & Clarke, 2006). The analysis became an active recursive process of moving back and forth through the six phases of thematic analysis as described by Braun & Clarke (2006).

Audio files from each focus group were obtained from the automatic recording acquired by Zoom Video Conferencing Software. The audio was uploaded to the Descript software, a word-document based audio transcribing software and was transliterated verbatim automatically, and again by hand. The transcripts were then de-identified by removing names and locations. Braun and Clarke (2006) described the first phase of thematic analysis as a period of immersion into the data. Therefore, familiarization of the data was obtained through repeated reading of the transcribed interviews. The audio recordings of the interviews of all 16 respondents were also listened to numerous times while reading the transcripts to ensure accuracy. The transcription files were then downloaded to Microsoft Word and formatted for MAXQDA Qualitative Data Software.

Using MAXQDA, the transcripts were coded while the audio recordings of the respective file was being played when necessary. This second phase of Braun and Clarke’s thematic analysis involved generating initial codes (2006). This was achieved through MAXQDA. All five focus group transcripts were coded employing a theory-driven approach based on the principal project question. Direct quotes were also extracted that demonstrated select coded segments. When satisfied that the codes from all five transcripts fully aligned with the project question posed, the focus continued on identifying patterns of meaning and phase three was initiated.
During phase three, the focus shifted to analyze the data in a broader sense. The codes were collated into respective themes. At this stage, “Seeing People that Look Like Me” emerged as the main theme. The following five supporting themes emerged from the data: promoting self-efficacy, resolving barriers, supporting recruitment strategies, understanding student needs and exposing educational challenges.

Once the preliminary themes were identified, Braun and Clarke’s (2006) fourth stage involved two levels of refinement. During level one, coded segments for each theme were read to confirm a consistent pattern. Coded segments that did not fit were rearranged and developed into a new or existing theme. Level two involved looking at the entire data set as a whole to confirm that the thematic map was an accurate representation of the project question that reflected the voice of the participants.

The second to last phase, involved a method termed, “define and refine” (Braun & Clarke, 2006). The thematic map was analyzed to ensure that the five supporting themes were not too complex and were organized into a coherent account. Finally, the last phase of Braun and Clarke’s thematic analysis method involved writing a detailed story of each theme and its relation to the project question. Direct extracts or quotes were included to illustrate the analytic points, support the data, and provide a consistent interpretation of the theoretical framework.

**Results**

**Quantitative Findings**

According to Instagram statistics, there were 181 visits to the *iamnursenelle* profile that contained the survey link. Ninety-eight total surveys were received with an 88% completion rate. Two surveys were disqualified for not meeting the age eligibility criteria. Typical
respondents were female (81%), were between 26-30 years of age (51%) and held a bachelor’s degree in nursing (73%). Results of the demographic survey are shown in Table 1.

Ninety-one percent of respondents reported using Instagram several times a day, with 90% reporting spending 1-6 hours a day on the internet. The top three purposes of using Instagram were interacting with friends (87%), education (80%) and sharing photos or videos (80%).

Agreement percentages from the self-reported measures were collected and are reported in Table 2. Eighty-six percent disagree that nurse anesthesia colleges and universities have adequate online presence and 84% disagree that there is adequate representation of minorities in the field of nurse anesthesia. Ninety-eight participants report being happy when they see another minority student nurse anesthetist online and 95% agree that developing a diverse healthcare workforce will help decrease healthcare disparities. Additionally, self-reported measures showed that followers had positive experiences with the iamnursesnelle Instagram account.

The participant answers to survey questions were largely homogenous, which led to similar response patterns and limited ranges for the responses. This skewed data, expectedly, led to broadly consistent positive views of items, such as positive regard of social media use. For example, there was a positive correlation between years of experience and age \([r = .553, n=96, p <.001]\) and between believing Instagram is an excellent medium for social interactions and Instagram use as motivation \([r = .600, n = 96, p < .001]\). Other positive correlations were found between believing Instagram is an excellent medium for social interactions and the iamnursesnelle page increasing confidence \([r = .324, n=90, p =.002]\), being a member of minority educational groups and using Instagram as a motivation \([r = .268, n = 95, p = .019]\) and using
Instagram as a source of motivation and the *iamnursenelle* account motivates studying \( r = .480, n = 95, p < .001 \).

There were also negative correlations regarding social media use that were related to how respondents with greater years of nursing experience see the use of social media with respect to their field. There was a negative correlation between years of nursing experience and believing Instagram is an excellent medium for social interaction \( r = -.259, n = 96, p = .011 \) as well as years of nursing experience and the Instagram account motivating one to study \( r = -.262, n = 95, p = .010 \) (see Table 2).

**Qualitative Findings**

Three current students participated in the first focus group, three current students participated in the second focus group, two prospective students participated in the third focus group, four prospective students participated in the fourth focus group, and three prospective students participated in the last focus group for a total of 16 participants. Of the 16 participants, five were male and 11 were female. Participants ranged in age from 18 to 35 years with zero to nine years of nursing experience (see Table 3).

Throughout all focus groups, participants voiced eagerness and passion to express their views of social media, self-efficacy, barriers and diversity. The main theme that emerged from the data was “Seeing People that Look Like Me.” This main theme was connected to five supporting themes: promoting self-efficacy, exploring educational challenges, resolving barriers, understanding student needs and supporting recruitment strategies (see Figure 2). The following presents the main theme and five supporting themes in detail.

**Major Theme 1. “Seeing People that Look Like Me.”** Despite participants having a high level of education, a frequent barrier reported by the participants that supports this main
theme was not seeing others of the same background that they could identify with either in CRNA school or in the profession itself. One participant stated,

Maybe if you don’t see a lot of people or are interacting with a lot of people that look like you, that might be a barrier because you might feel like that might not be the profession for you because you don’t fit in.

Participants expressed that not being able to find CRNAs of color made them feel inadequate as if working in the profession was not something that they could attain. It was through social media that participants found inspiration and support to develop the self-efficacy needed to pursue a career in nurse anesthesia. One participant responded, “I feel like social media is opening a new world of letting people know that they can actually do this and seeing that some people have done it I can go through it too whatever it is” and another participant responded, “---knowing there is someone that looks like you. That’s doing it and is succeeding in it. And I think that is invaluable to have.”

Supporting theme 1. Promoting self-efficacy. Branching off of the major theme stemmed the supporting theme, promotion of self-efficacy. Participants described this theme as encompassing the following subthemes: setting goals, having vision, advocating for self, building confidence, and working on resilience. This ideal of self-efficacy was identified as coming from “within.” Participants connected increasing their self-efficacy with use of social media. One participant stated,

I also have one more thing to add too, just remembering now with self-efficacy because I think there’s some components in terms of feedback and also watching other people do it helps increase your self-efficacy and so this is where social media and your page (iamnursenelle) comes in.
Supporting theme 2. Exposing educational challenges. Participants were asked about their barriers to succeed. These are the aspects of CRNA school that they believed prevented them or others from succeeding. This theme consisted of the following subthemes: application competition, program length, silent profession, naysayers, lack of diversity, inability to work, finances, family responsibilities, racial profiling and workplace politics. One important subtheme within this that emerged was the concept of the profession being secretive or silent. Many participants did not know the profession existed. If it were not for social media, participants stated that they would not have known about it. Participant responses supporting silent profession subtheme included, “I heard that like CRNA is that profession, it’s one of the best kept secrets in healthcare and maybe amongst minorities as well like even more so possible that we don’t know about it”, and

I wonder if I was not a SRNA or in pursuit of a career as a CRNA would I know about you all in this profession and the benefits of it? Sometimes I think they call CRNAs the silent profession like one of those things where everyone thinks you’re an anesthesiologist or just a nurse.

The participants were asked which barriers they thought were the most important that would impact pursuing the career. One participant replied,

I would say maybe the most important is lack of knowledge or either lack of knowledge or lack of support. If you don’t have support from your co-workers or support from your family or support from your friends around you then that can be difficult.

It was important for prospective students to have that support, especially in the workplace. Not having support was perceived by participants as making it difficult to have the
desire to pursue the CRNA profession because of instilled fear of reprimands from employers for wanting to advance in this specialized field of nursing. One participant maintained,

*My particular floor isn’t very welcoming to the idea of people pursuing a higher level of education. Sometimes it kind of backfires on you where the managers play with your schedule or they discourage you by talking behind your back. So social media is a good form of having that encouragement, someone to talk to.*

**Supporting theme 3. Resolving barriers.** Participants then discussed how to resolve barriers in regard to social media that could help them achieve their goals. This theme included the following subthemes: correcting misleading information, creating better communication channels, avoiding echo chambers, stop comparing self to others and having a more supportive unit that promotes graduate education.

**Supporting theme 4. Understanding student needs.** Participants were asked how they used social media and what aspects that they liked about social media. This theme consisted of the following subthemes: sharing experiences, answering the unanswered, surrounding self with like-minded people, the promotion of self-care, mentorship, role modeling, reciprocal communication and tips for success. One participant responded, “*It’s putting in the back of my mind like a perspective of what life as an SRNA is going to be like.*” Another participant stated, “*I use it not only for myself but to hopefully help better my program.*”

**Supporting theme 5. Supporting recruitment strategies.** Lastly, participants discussed the lack of colleges and universities online. This theme consisted of the following subthemes: promoting the profession, showcasing students, designing better faculty recruitment strategies, increasing reality platforms, posting honest diversity statistics, and increasing on-line presence. Participants were discouraged by schools stating they were diverse, but when they went to
They had no diverse faculty or applicants. Participants said that nurse anesthesia programs should increase their online presence to showcase students and increase recruitment. One participant stated, “They need to have a presence online on social media and also talk about it more. Because some people have this idea of I can’t go to that school. They don’t like diversity or they wouldn’t take me.” Another participant stated, “It’s like a way to connect, make it more personal and more real – they have a lot of information like getting in – the requirements but as far as like that personal connection, that was lacking.”

Discussion

This project builds on the limited body of knowledge regarding social media, specifically Instagram for educational and professional socialization purposes. It suggests possible usefulness in the recruitment and retention of a diverse student body as well as supporting the self-efficacy of prospective and current students.

As the years of nursing and age increased, the beliefs of whether Instagram is an excellent medium for social interaction and motivation declined. The project author suggests that this is due to the fact that younger generations tend to utilize social media more than older generations. This further supports the argument to utilize social media for the millennial generation.

In this project, there was a distinct theme that suggested the barriers that students face lowers their self-efficacy. However, methods to resolve those barriers were discussed and utilized. A significant finding was that often students utilized Instagram to see others engaging in the activities that they will do in the future. Seeing the project author discuss cases, explaining situations, study tips and providing information would be considered mastery.
experiences. It is those experiences that Bandura (1994) has said to have the greatest impact on self-efficacy.

Other sources of self-efficacy were apparent in the analysis. Instagram direct messaging features and comment sections provide a virtual forum where verbal persuasion occurred. Users can interact with each other as an additional source of information that can include suggestions, personal tips and encouragement. Verbal persuasion is the third most effective way to increase self-efficacy (Bandura, 1977).

While the project author did not directly measure the participants level of self-efficacy, it was evident from the emerging themes that engagement in an Instagram account can have a positive and negative impact on one’s self-efficacy. While participants were happy to see others that resembled their backgrounds, at times they described overly comparing themselves to others, focusing just on the requirements and having difficulty knowing how to become more competitive. By utilizing Bandura’s four sources of self-efficacy, universities can develop other social media platforms with embedded strategies to develop students’ mastery experiences, modeling behaviors and indirect verbal persuasion.

**Strengths**

This project helped to identify gaps in research with regard to understanding the role of social media in professional socialization and self-efficacy. Utilizing a mixed-methods approach offset the weaknesses inherent to using each approach itself and provided a more complete and comprehensive understanding of the topic. Exploring the views of current and prospective minority nurse anesthesia students in relation to self-efficacy and professional socialization can assist in developing an instrument with greater construct validity.
Limitations

Due to its online nature, the scope of this project takes place on the world-wide web with access to nurses from across the U.S. and its territories. This study was limited to nurses in the U.S. The main source of data is an online questionnaire and virtual focus group. Limitations of this study include lack of prior research on this subject matter and that self-reported data cannot be easily independently verified due to selective memory, attribution and exaggeration. Other limitations include a relatively small sample size and potential focus group peer pressure and influence of group thinking.

The findings resulting from this project were derived from a convenience sample of students who were willing and able to volunteer their time. The sample provided responses that were largely homogenous. This was not entirely unexpected but did impact the available options for quantitative analyses. These statistically significant Pearson moment correlations obtained were expected and were due to the nature of the study population and skewed data. The participants were all social media users, so it was not surprising to see positive views of social media (e.g., Instagram use) and its potential use as a tool of support; in this case with minority nurse anesthesia students.

Participants were current followers of the iamnursenelle account, therefore correlations concerning its use were all positive in nature. The project author made the assumption that participants who did not find the account useful would not be following the account and therefore would not have participated in the survey. A noteworthy finding was that nurses with greater years or experience had negative views of social media’s potential role in supporting minority nurse anesthesia students. In addition, the lack of a verified instrument to measure self-efficacy of minority nurse anesthesia students posed a challenge to the project author.
Conclusion

Instagram may be an important tool by which prospective and current minority nurse anesthetist students can build their self-efficacy through engaging with others. As the nursing workforce is in critical need of diversity, this is important as it gives the next generation of minority nurses that additional push and exposure that they need to regain their self-efficacy and commitment to graduate education. Further study is needed to explore the relationship between self-efficacy and outcomes to determine if enhanced self-efficacy through social media has an impact on retention. Based on the emerging supporting theme of exposing educational challenges, more research is proposed by the project author to understand the lack of support from employers to nurses pursuing CRNA school and what can be done to increase the awareness of the profession.
References


doi:10.1016/j.nedt.2013.11.006


Table 1

*Characteristics of Participants*

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Table 2

*Pearson Product Moment Correlations*

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<th>I use Instagram as a form of motivation</th>
<th>The account allowed me to better understand the role of a nurse anesthetist</th>
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- Correlation is significant at the 0.05 level (2-tailed)
- **Correlation is significant at the 0.01 level (2-tailed)**

I use Instagram as a form of motivation

The account allowed me to better understand the role of a nurse anesthetist
Table 3

*Focus Group Demographics*

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<td></td>
</tr>
<tr>
<td>Nursing student</td>
<td>3</td>
<td>18.8</td>
</tr>
<tr>
<td>1-2 years</td>
<td>4</td>
<td>25</td>
</tr>
<tr>
<td>3-5 years</td>
<td>6</td>
<td>37.5</td>
</tr>
<tr>
<td>6-9 years</td>
<td>3</td>
<td>18.8</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N/A — no degree</td>
<td>2</td>
<td>12.5</td>
</tr>
<tr>
<td>Associates</td>
<td>1</td>
<td>6.2</td>
</tr>
<tr>
<td>Bachelor’s</td>
<td>10</td>
<td>62.5</td>
</tr>
<tr>
<td>Masters</td>
<td>3</td>
<td>18.8</td>
</tr>
</tbody>
</table>
Figure 1

*Nurse Nelle Instagram Page*
Figure 2

Thematic Concept Map

- being determined
- having vision
- building confidence
- promoting the profession
- promoting self-efficacy
  - advocating for self
  - setting goals
- supporting recruitment strategies
  - design better faculty recruitment strategies
  - increase reality platforms
  - post honest diversity stats
- "seeing people that look like me"
  - application competition
  - naysayers
  - Racial profiling
  - exposing educational challenges
    - inability to work
    - Family responsibilities
    - Lack of diversity
- resolving barriers
  - avoiding echo chambers
  - transparency
  - Sharing experiences
- understanding student needs
  - Tips for success
  - mentorship
  - Role modeling
- correcting incorrect information
- better communication
- stop comparing self
- increase online presence
Appendix A
Institutional Review Board Documents

September 7, 2018

Dear Charnelle Lewis,

On 9/7/2018, the University at Buffalo IRB reviewed the following submission:

<table>
<thead>
<tr>
<th>Type of Review:</th>
<th>Initial Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title of Study:</td>
<td>BEYOND THE DOUBLE TAP: INFLUENCE OF INSTAGRAM ON MINORITY NURSE ANESTHESIA STUDENTS</td>
</tr>
<tr>
<td>Investigator:</td>
<td>Charnelle Lewis</td>
</tr>
<tr>
<td>IRB ID:</td>
<td>STUDY00002807</td>
</tr>
<tr>
<td>Funding:</td>
<td>None</td>
</tr>
<tr>
<td>Grant ID:</td>
<td>None</td>
</tr>
<tr>
<td>IND, IDE, or HDE:</td>
<td>None</td>
</tr>
<tr>
<td>Documents Reviewed:</td>
<td>• Transcript for Video Ad.pdf, Category: Recruitment Materials; • Demographic and Instagram Questionnaire.docx, Category: Surveys/Questionnaires; • Consent Form.pdf, Category: Consent Form; • Research Protocol HRP 505, Category: IRB Protocol; • Career Decision Self Efficacy Tool.docx, Category: Surveys/Questionnaires;</td>
</tr>
</tbody>
</table>

The University at Buffalo Institutional Review Board has considered the submission for the project referenced above on 9/7/2018 and determined it to be Exempt.

In conducting this study, you are required to follow the requirements listed in the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library within the Click system.

UBIRB exemption is given with the understanding that the most recently approved procedures will be followed and the most recently approved consenting documents will be used. If modifications are needed that may change the exemption determination, please contact the UB IRB Office. Also, see the Worksheet: Exempt Determination (HRP-312) for information on exemption criteria and categories.

As principal investigator for this study involving human participants, you have responsibilities to the SUNY University at Buffalo IRB (UBIRB) as follows:

1. Ensuring that no subjects are enrolled prior to the IRB approval date.
2. Ensuring that the UBIRB is notified of:
   - All Reportable Information in accordance with the Reportable New Information Smart Form.
   - Project closure/completion by submitting a Continuing Review/Modification/Study Closure Smart Form in Click.

3. Ensuring that the protocol is followed as approved by UBIRB unless minor changes that do not impact the exempt determination are made.

4. Ensuring that the study is conducted in compliance with all UBIRB decisions, conditions, and requirements.

5. Bearing responsibility for all actions of the staff and sub-investigators with regard to the protocol.

6. Bearing responsibility for securing any other required approvals before research begins.

If you have any questions, please contact the UBIRB at 716-888-4888 or ub-irb@buffalo.edu.
Appendix B

Recruitment Video Transcript

“My name is Charnelle Lewis, and I am a student registered nurse anesthetist at the University at Buffalo. For my doctorate capstone project, I am conducting research about how an educational Instagram account impacts professional self-efficacy amongst minority nurse anesthesia students. I am inviting you to share your views on this topic to help evaluate what influences the lack of diversity in this profession, as well as aiding the development of guidelines that can enhance graduate education and the recruitment of minority students.

This research study is available to any of the followers of this account that meet the criteria in the description. If you meet these criteria, please click the link in my Instagram bio to review the consent and take the electronic survey. Your participation in this study is voluntary and you are free to withdraw your participation from this study at any time. The survey will take approximately 10 minutes to complete.

This survey has been approved by the Institutional Review Board of the University at Buffalo. There are no risks associated with participating in this study. While you will not experience any direct benefits from participation, information collected in this study may benefit the profession of anesthesia in the future by better understanding the use of social media in recruitment and retention measures.

In addition to the electronic survey, you will also be provided with the opportunity to participate in a virtual focus group with me. If you’re interested in sharing additional thoughts, at the end of the survey you will be asked to enter your e-mail address to receive further information about the virtual focus group.

I thank you all for taking the time out of your busy schedules to assist me in my educational endeavors.

Criteria:
- Age 18 – 35
- Resident of the United States
- Underrepresented Minority as defined as:
  - African American/Black, Asian, Hispanic, American Indian/Alaskan Native, Native Hawaiian/Pacific Islander & Other.
- Current enrollment in a Nurse Anesthesia program as a SRNA (student registered nurse anesthetist) (or) consideration or plans of enrollment as a student in a Nurse Anesthesia program
- Active following of the iamnursenelle account: exposure to IG post or story pertaining to CRNA school.
Appendix C
Questionnaire

* 1. Do you consent with your personal data being processed as described above?
   ○ Yes
   ○ No

2. Select your racial/ethnic background.
   ○ White/ Caucasian
   ○ Black or African-American
   ○ American Indian or Alaskan Native
   ○ Asian
   ○ Native Hawaiian or other Pacific Islander
   Some other race (please specify)

3. Are you of Spanish, Hispanic or Latino/Latina origin or descent?
   ○ No, not Spanish/Hispanic/Latino or Latina
   ○ Yes, Puerto Rican
   ○ Yes, Mexican, Mexican American, Chicano
   ○ Yes, Cuban
   ○ Yes, other Spanish/Hispanic/Latino

4. Gender you best identify with:
   ○ Female
   ○ Male
   ○ Choose not to say
   ○ Other (specify)
5. What is your age?

- Under 18
- 18-20
- 21-25
- 26-30
- 31-35
- 36-40
- Over 40

6. In which region of the United States do you live?

- New England (Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut)
- Middle Atlantic (New York, New Jersey, Pennsylvania)
- East North Central (Ohio, Indiana, Illinois, Michigan, Wisconsin)
- West North Central (Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas)
- South Atlantic (Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida)
- East South Central (Kentucky, Tennessee, Alabama, Mississippi)
- West South Central (Arkansas, Louisiana, Oklahoma, Texas)
- Mountain (Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada)
- Pacific (Washington, Oregon, California, Alaska, Hawaii)
- Puerto Rico
- Other US Territory

7. What is your highest level of nursing education?

- Diploma
- Certified Nurse Assistant (CNA)
- Associates (ADN)
- Bachelors (BSN)
- Masters (MSN)
- Doctoral Degree (DNP/PhD)
- N/A – No degree in nursing
8. How many years of nursing experience do you have?
   - None
   - Nursing Student
   - Less than 1
   - 1-2 years
   - 3-5 years
   - 6-9
   - Over 10 years

9. Which describes your current academic status?
   - Current (enrolled) Nurse Anesthesia Student
   - Prospective Nurse Anesthesia Student (not enrolled, but is actively applying, recently accepted or is interested in the profession)

10. How often do you use Instagram?
    - Never
    - Several times a day
    - About once a day
    - A few days a week
    - Every few weeks
    - Less often
    - Don't know

11. How many hours a day, on average do you spend on the internet?
    - Less than 1 hour
    - 1-3 hours
    - 4-6 hours
    - 7-9 hours
    - 10 or more hours
12. What is your purpose of using Instagram? (Select top 3)
- [ ] Sharing photos/videos
- [ ] Interacting with friends
- [ ] Online shopping
- [ ] News Updates
- [ ] Education

13. What other social media sites do you use (Select all that apply)?
- [ ] Facebook
- [ ] Twitter
- [ ] YouTube
- [ ] Online Forums (allnurses/nurse-anesthesia.org)
- [ ] Other (please specify)  

14. Do you follow other CRNAs (Certified Registered Nurse Anesthetists) or SRNAs (Student Registered Nurse Anesthetists) on Instagram?
- [ ] Yes
- [ ] No
15. Please indicate your agreement/disagreement to the following statements.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree or Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is sufficient information online about how to get into nurse anesthesia school.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Nurse anesthesia colleges/universities have adequate presence on social media.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Online/web-based communication via Instagram is an excellent medium for social interaction.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I use Instagram as a form of motivation.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

16. Please indicate your agreement/disagreement to the following statements about the iamnursenelle Instagram page.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree or Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>The account allowed me to better understand the typical day of a student nurse anesthetist.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The account allowed me to better understand the role of a nurse anesthetist.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The account was helpful in guiding me to other resources that I could use to prepare for school.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The account motivated me to study.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The account presents useful educational tips.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
17. For current nurse anesthesia students, how many minorities are in your nurse anesthesia class?
- 0-2
- 3-5
- More than 5
- N/A

18. Please indicate your agreement/disagreement to the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree or Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is adequate representation of minorities in the field of nurse anesthesia.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I feel happy seeing another minority student nurse anesthetist online via social media.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I am a member of educational group(s) for minorities in nurse anesthesia or healthcare.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Developing a diverse healthcare workforce will help decrease healthcare disparities.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
19. Please indicate your agreement/disagreement to the following statements:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree or Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>My confidence in my abilities are increased when I see others achieve a goal that I desire to achieve.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The iamnurseselle Instagram page has increased my confidence in my ability to achieve a goal.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>After observing a task I am unfamiliar with on Instagram, my confidence in performing that task in the future increases.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I am resilient in the face of obstacles.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I use Instagram as a means of increasing my confidence in my abilities.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>The iamnurseselle page makes me feel I can be successful.</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>
Thank you for your interest in my survey. Please read the following and agree to the consent statement to begin.

Criteria:
- Age 18 – 35
- Resident of the United States
- Underrepresented Minority (African American/Black, Asian, Hispanic, American Indian/Alaskan Native, Native Hawaiian/Pacific Islander & Other)
- Current enrollment in a Nurse Anesthesia Program or plans of enrollment in a Nurse Anesthesia Program
- Follower of the ianurseselle account

You are invited to participate in a web-based online survey on a professional Instagram and its impact on minority current and prospective nurse anesthesia students. This is a research project being conducted by Charnelle Lewis a student nurse anesthetist at the University at Buffalo. She is the owner and creator of the Instagram account being studied, ianurseselle. It should take approximately 10 minutes to complete.

PARTICIPATION
Your participation in this survey is voluntary. You may refuse to take part in the research or exit the survey at any time without penalty. You are free to decline to answer any particular question you do not wish to answer for any reason.

BENEFITS
You will receive no direct benefits from participating in this research study. However, your responses may help us learn more about the impact of a professional/educational impact on the self-efficacy of minority nurse anesthesia students. Examination of this relationship is integral to discovering what influences the lack of diversity in the field of nurse anesthesia, as well as aiding the development of guidelines that can enhance graduate education and the recruitment of minority students.

RISKS
There are no foreseeable risks involved in participating in this study other than those encountered in day-to-day life.

CONFIDENTIALITY
Your survey answers will be sent to a link at SurveyMonkey.com where data will be stored in a password protected electronic format. Survey Monkey does not collect identifying information such as your name, email address, or IP address unless provided by you. Therefore, your responses will remain anonymous. No one will be able to identify you or your answers, and no one will know whether or not you participated in the study.
At the end of the survey you will be asked if you are interested in participating in an additional focus group interview by video. If you choose to provide contact information such as your phone number or email address, your survey responses may no longer be anonymous to the researcher. However, no names or identifying information would be included in any publications or presentations based on these data, and your responses to this survey will remain confidential.

CONTACT
If you have questions at any time about the study or the procedures, you may contact the researcher, Charnelle Lewis BSN, RN at charnell@buffalo.edu.

If you feel you have not been treated according to the descriptions in this form, or that your rights as a participant in research have not been honored during the course of this project, or you have any questions, concerns, or complaints that you wish to address to someone other than the investigator, you may contact the research participant advocate at 716-888-4845 or researchadvocate@buffalo.edu.

This research has been reviewed and approved by an Institutional Review Board (“IRB”). You may talk to them at (716) 888-4888 or email ub-irb@buffalo.edu

ELECTRONIC CONSENT: Please select your choice below. You may print a copy of this consent form for your records. Clicking on the “YES” button indicates that:
· You have read the above information and meet the criteria
· You voluntarily agree to participate
· You are 18 years of age or older
Appendix E

Focus Group Questions

1. Where did you find information about CRNA school?

2. Barriers to pursuing nurse anesthesia school?

3. If so, how can social media help break down those barriers?

4. Tell me how does seeing someone of color who is in CRNA school via Instagram affect you?

5. What would be your ideal Instagram page for a current CRNA student?

6. How do you use the Nurse Nelle Instagram Page?

7. How do you believe self-efficacy plays a role in your goals?

8. How do you define resilience?

9. If so, in what ways has the iamnursenelle page affected your self-efficacy?

10. What do you think colleges and universities should do to help recruit minorities?

11. Would you find it useful for colleges and or universities to utilize social media more to assist students prior to enrollment? Why or Why not?
Appendix F

Focus Group Instructions

Good evening and welcome to the first focus group session. I wanted to thank you all for taking the time to join me to talk about social media and self-efficacy of minorities. My name is Charnelle Lewis and I am a senior Student Nurse Anesthetist at the University at Buffalo in Buffalo, NY. I am conducting several focus groups to gain a better insight on how social media impacts your beliefs or non-belief that you can succeed through CRNA school. Gathering this data will be used for my doctorate capstone project in hopes to create guidelines that addresses the use of social media to assist in the reduction of barriers to success, recruitment and retention of minority nurse anesthetist students.

You all were invited and are participating in this group together because you are currently [or prospective] CRNA students or recently accepted CRNA students.

There are no wrong answers but rather differing points of view. Please feel free to share your point of view even if it differs from what others have said. Keep in mind that I’m just as interested in negative comments as positive comments and at times the negative comments are the most helpful. I understand that if you must respond to a matter that occurs outside this focus group, please do so as quietly as possible (mute if needed) and rejoin as quickly as you can.

This session will be recording audio and video because I’m working independently and don’t want to miss any of your comments. I will also be taking a lot of notes. While you all know who I am and many of you have built a rapport with me, I serve as you moderator, notetaker and I’m here to facilitate discussion as needed. Therefore, this is semi-structured focus group and I encourage you all to participate. I have questions that I will ask, however, it’s not imperative that we get through all of the questions. This is a discussion group so respond to one another, but please keep the discussion on the main topics that I’ve mentioned in the beginning.

We’ll be on a first name basis tonight, I won’t use any names in the manuscript. You may be assured of complete confidentiality and per the consent you signed, you have agreed to keep this session and what you have learned personally from others confidential.
Beyond the Double Tap: Impact of an Educational Instagram Account on Minority Nurse Anesthesia Students

Charnelle Lewis BSN, SRNA

Committee Members:
Dr. Cheryl Spulecki, DNAP, MS, CRNA
Dr. Loralee Sessanna, DNS, RN, CNS, AHN-BC
Wallena Gould, EdD, CRNA, FAAN

INTRODUCTION

RESEARCH QUESTION & BACKGROUND

Beyond the Double Tap: Impact of an Educational Instagram Account on Minority Nurse Anesthesia Students

Charnelle Lewis BSN, SRNA

Committee Members:
Dr. Cheryl Spulecki, DNAP, MS, CRNA
Dr. Loralee Sessanna, DNS, RN, CNS, AHN-BC
Wallena Gould, EdD, CRNA, FAAN

Introduction

RESEARCH QUESTION & BACKGROUND

Background of Research Intervention

- Why Instagram?
- RN in theCVICU
- Education underestimated
- Lack of resources and diversity
Secondary objective: to explore the barriers to nurse anesthesia education and identify recruitment strategies for graduate anesthesia programs.

Purpose
Examine the impact of an educational-based nurse anesthesia Instagram account on professional self-efficacy among minority nurse anesthesia students.

Research Question
In current and prospective minority nurse anesthesia students aged 18-35 in the US, how does interaction with an educational Instagram account impact professional self-efficacy?

Additional Queries:
- How can Instagram be used?
- What can Instagram and social media contribute?
- Can barriers be alleviated through social media?
- What can graduate programs do?

PICO Structure
Population
- Men and women aged 18-35
- Underrepresented minority students
- Current and prospective students of a CRNA program
- Users of Instagram

Intervention
- Interaction with Instagram account

Comparison
- None

Outcome
- Increased self-efficacy and knowledge of the profession
Background
JUSTIFICATION & SIGNIFICANCE

Diversity in Nursing
- Increased need for healthcare workforce to reflect the diversification of the nation.
- Lack of diversity is an element in why health disparities exist (Jackson & Gracia, 2014).
- Organizational cultural competence improves quality in minority populations (Loftin et al., 2012).

Diversity in Nurse Anesthesia
- 2018 AANA Profile Survey

Barriers to Success
- Lack of financial support
- Inadequate social and emotional support
- Professional socialization
- Despite barriers, minorities developed a “resolve to succeed”
  - Resilience, persistence, self-motivation and determination (Jackson et al., 2014).
The Future of Nursing

- Institute of Medicine recommendations
- Increase doctorate degrees
- Focus on diversity
- Diversity CRNA mentorship program

Why Social Media?

- Lack of programs available for prospective CRNA students
- Social media is an effective platform:
  - 88% of 18–29 year-olds use any form of social media
  - 72% of 18–24 year-olds use Instagram
  - 81% of Instagram users 18–24 years of age use the platform daily, with 55% doing so several times a day.

Literature Review

- Students perceived social media as being very beneficial
- Generational difference existed in social media use of students vs. faculty
- Facebook group enhanced social connectedness and sense of belonging
- Traditional training model of nursing may not be adapted to increase self-efficacy
- Higher academic self-efficacy support through social media was related to lower test anxiety
- Having strong social media ties enhance the development of resilience

Theoretical Framework

ALBERT BANDURA SOCIAL COGNITIVE THEORY OF SELF-EFFICACY

Duke et al., 2017; Price et al., 2018; Watson et al., 2015; McLoughlin et al., 2007; Warshawski et al., 2019
Albert Bandura

- Social cognitive theory
- Self-Efficacy—one's belief in their ability to succeed in a specific situation or task
- Predictor of academic performance
- Low self-efficacy vs. high self-efficacy
- Four sources of self-efficacy

Social Cognitive Theory: Self-Efficacy

Performance Motivation

Vicarious Clinical Situations

Emotional Arousal

Negative Echo Chambers

Verbal Persuasion

Dropping out of school

Vicarious Day to Day Experience

Motivational Posts

Clinical Situations

Personal Control

Connecting Theory to Research

Applying for Clinical School

Diversifying Failure

Decision Making

Grieving Out of School

Motivational Posts

Negative Echo Chambers

Preparation

Clinical Situations

Yesteryear
Methods & Methodology

DESIGN, SETTING, POPULATION, DATA COLLECTION & ANALYSIS

**Methodology**

- **Method**
  - Instagram
    - Created in July 2017
    - Username: @iamnursenelle
    - Class, care plans, clinical, educational concepts, motivational posts
    - Instagram posts, stories and highlight features

- **Data Collection**
  - Online via SurveyMonkey©

- **Data Analysis**
  - Descriptive Statistics
  - Demographic & social media use
  - Social media, diversity & self-efficacy - thematic analysis
  - Thematic Analysis
    - Braun & Clarke Method

**Study Design**

- Mixed-Methods sequential explanatory strategy
- Cross Sectional Study
- Demographic Information
- Social Media Use
- Qualitative Content Analysis
- Virtual focus group
- Semi-structured

**Results**

- Statistical Analysis
## Population – Demographic Results

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>77</td>
<td>80.2</td>
</tr>
<tr>
<td>Male</td>
<td>17</td>
<td>17.7</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>2.1</td>
</tr>
<tr>
<td>Ethnicity</td>
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<tr>
<td>Total</td>
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### Quantitative

- **Q10** How often do you use Instagram?
  - Never
  - Once a week
  - Once a day
  - Every few hours
  - Several times a day
  - Constantly

- **Q11** How many hours a day, on average, do you spend on the internet?
  - 0-1 hours
  - 1-2 hours
  - 2-3 hours
  - 3-4 hours
  - 4-5 hours
  - 5-6 hours
  - 6-7 hours
  - 7-8 hours
  - 8-9 hours
  - 9 or more hours

### Quantitative

- **Q15** Please indicate your agreement/disagreement to the following statements.
  - Strongly Agree
  - Agree
  - Neither Agree nor Disagree
  - Disagree
  - Strongly Disagree
Quantitative Findings

Inferential Statistics – Pearson’s r Correlation

Qualitative Findings

Qualitative Findings
Seeing People That Look Like Me

“I feel like social media is opening a new world of letting people know that they can actually do this, and seeing some people have done it, I can go through it too … whatever it is.”

“I think sometimes social media can make people compare themselves to other people and then kind of create that area of self-doubt.”

“I went to a predominately white institution. It was just harder to find someone who looked like me who I felt like I could connect with who was in the profession I was interested in. My means of going about and finding someone was by using social media.”

“Promoting Self-Efficacy

“I think sometimes social media can make people compare themselves to other people and then kind of create that area of self-doubt.”

“I think there’s some components in terms of feedback and also watching other people do it helps increase your self-efficacy and so this is where social media and your page (iamnursenelle) comes in.”

Exposing Educational Challenges

“I think they call CRNAs the silent profession like one of those things where everyone thinks you’re an anesthesiologist or just a nurse.”

“I would say the most important is lack of knowledge or either lack of knowledge or lack of support.”

“My particular floor isn’t very welcoming to the idea of people pursuing a higher level of education. Sometimes it kind of backfires on you where the managers play with your schedule or they discourage you by telling behind your back. So social media is a good form of having that encouragement, someone to talk to.”

Resolving Barriers

“Create better communication channels.

“Avoid echo chambers.

“More supportive unit.”

Understanding Needs

“Personally use the page to motivate myself.”

“Pretty much use your page to just hit the really gritty of what I need to know.”
Supporting Recruitment Strategies

“They need to have a presence online on social media and also talk about it more. Because some people have the idea of ‘I can’t go to that school, they don’t feel diversity or they wouldn’t take me.’

“It’s like a way to connect, make it more personal and more real – they have a lot of information like getting in, the requirements, but as far as the personal connection, that was lacking.”

Social Media as a Tool

- Social media reflecting the diversity programs claim to have
- Engagement of millennials
- Development of online resources
- Protocol for utilization of social media

Implications

SOCIAL MEDIA & THE CLASSROOM

Discussion

Scope, Limitations, Implications
Scope

- World wide web with access to participants from across the United States and its territories.
- This study is limited to participants defined by the criteria in the previous slides.
- Main sources of data are online surveys and virtual focus group.

Limitations

- Lack of prior research.
- Small sample size.
- Self-reported data cannot be easily independently verified.
- Selective memory, attribution, and exaggeration.

Conclusion