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# Education Methods for Conflict Resolution to Nursing Students

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Education Methods for Conflict Resolution to Nursing Students

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**Abstract**

Education Methods for Conflict Resolution to Nursing Students

Interprofessional collaboration is a mainstay of patient care delivery in contemporary healthcare systems.  Interprofessional collaboration is a challenging endeavor where in the pursuit of quality care can lead to conflict among the participant professionals. Positive interprofessional collaboration results in high quality patient care and increased job satisfaction among hospital staff (Begley, 2008). Unreliable conflict resolution can lead to decreases in morale, increasing turnover rates, decreased patient satisfaction, and an increase in lawsuits (Waite & McKinney, 2014). In order to be effective in their role, professional nurses must possess well-developed conflict resolution skills and therefore, nurse educators have a responsibility teach nursing students evidence-based strategies for conflict resolution. This project was developed to determine an evidenced based method for teaching conflict resolution that best prepares bachelor degree level nursing students for effective interprofessional communication in post-licensure practice. Bandura's self-efficacy theory provided the framework, which integrated evidenced based methods into a lesson plan. A comprehensive review of the literature was conducted to identify what is known about the methods of teaching conflict resolution that are used by professional nurses. This evidence was used to construct a lesson plan that has the potential to influence future nurses as it addresses essential VI in the Essentials of Baccalaureate Education for Professional Nursing Practice by the American Association of Colleges of Nursing ("AACN," 2008, p.3), which states "communication and collaboration among healthcare professionals are critical to delivering high quality safe patient care".

**Introduction**

The complex health care environment is susceptible to many negative effects of conflict. Unreliable conflict resolution skills can lead to a decrease in patient satisfaction, morale, and, an increase in turnover rates and lawsuits (Brinkert, 2010; Pines et al., 2014; Sportsman, 2007,). Nurses must have the competence and confidence to address difficult situations in a constructive manner, and creating a work environment where health care collaboration can be achieved creates a positive environment for all involved.  To achieve this, nurse educators must put an emphasis on interprofessional education in undergraduate nursing programs (Begley, 2008; Chan, Sit, & Lau, 2014; Seren & Ustun, 2008).  This project was designed to assist nurse educators instructing bachelor degree level nursing students on interprofessional practice and conflict resolution.

An extensive literature review was conducted to provide evidenced based recommendations in choosing a method for this type of education.  Banduras self-efficacy theory provided the framework resulting in program recommendations. The recommendations were presented as an in-service at a local university in anticipation of integrating more interprofessional communication and conflict resolution education into their nursing program.

**Purpose**

The purpose of this project is to develop evidenced based methods for delivering education on interprofessional education and conflict resolution to the nursing students at the university. At the time of this project, there is no specific application, or consistency on introducing interprofessional education related to conflict resolution into the nursing program at this university, in any level of the program.

Research has shown that to educate students on interprofessional collaboration and conflict resolution they must understand their conflict management styles, (Chan et al., 2014; Kantek & Gezer, 2009; Pines et al., 2014; Sportsman, 2007; Waite & McKinney, 2014). Students must also learn about the different types of management styles, and practice implementing these styles in practice situations (Kantek & Gezer, 2009; Ogunyemi, Fong, Elmore, Korwin, & Azziz, 2010; Pines et al., 2014; Sportsman, 2007; Vivar, 2006; Waite & McKinney, 2014). A combination of didactic teaching, group work, and simulation is recommended to help incorporate the skills of interprofessional collaboration and conflict resolution into students' curriculum (Dyess & Sherman, 2009; Seren & Ustun, 2008; Waite & McKinney, 2014).  These approaches were acquired from the literature and aided in development of an educational outline for possible integration into experiences for sophomore level bachelor degree nursing students to allow exposure to interprofessional communication and conflict resolution throughout their nursing education.

## Significance

Unresolved conflict and poor interprofessional communication can contribute to decreased patient satisfaction, preventable adverse outcomes, increase the cost of healthcare, and cause qualified clinicians to seek positions elsewhere ("Sentinel Alert," 2008). Health care is increasing in complexity, and this environment requires effective communication and conflict resolution skills.  According to Brinkert (2010 p.149), associated costs of conflict can include: (a) losses in productivity, (b) increased employee turnover rates, (c) regulatory fines, (d) reputation and market position loss, (e)  emotional stress, (f) increased care costs to handle adverse patient outcomes. Integrating conflict resolution and interprofessional communication into the pedagogical journey of students in a bachelor of nursing will decrease some of these

costs and prepare them for the integral role of providing safe effective healthcare in an ever-changing complex health care system.

The World Health Organization recognized the need to integrate education policies that can promote effective interprofessional education and collaborative practice through development of a pivotal framework that clarifies and provides tactics for this purpose (WHO, 2010). The framework for action and interprofessional education & collaborative practice stated that "interprofessional education is a necessary step in preparing a collaborative practice-ready health workforce that is better prepared to respond to local health needs" (WHO, 2010 p.7).  The American Association of Colleges of Nursing also addressed the educational needs of nursing students in the Essentials of Baccalaureate Education for Professional Nursing Practice. Essential IV specifies, "Communication and collaboration among healthcare professionals are critical to delivering high quality safe patient care" (AACN, 2008, p.3).

This educational lesson plan was developed to provide an evidenced based curriculum that can be integrated into the lessons of the sophomore level of the nursing program.  The goals of this plan was to prepare students for interprofessional communication and effective conflict resolution.  The ultimate goal for the project sought to improve patient outcomes through effective interprofessional practice within the healthcare system by starting at the educational level. Giving students the opportunity to understand, and experience conflict resolution and interprofessional communication in controlled non-threatening settings, will enhance their confidence levels and significantly prepare them to provide paramount patient care throughout their careers.

**Theoretical Framework**

An effective teaching plan for students in a bachelor of nursing program learning about effective conflict resolution and interprofessional communication should be grounded in a theory that integrates creating and strengthening personal effectiveness. Students need to have a strong base of self-efficacy, while being educated on communication skills in order to continue the desired behavior successfully (Pender, Murdaugh, & Parsons, 2006). Motivation can be positively impacted by one's self-beliefs of efficacy (Bandura, 1994). Banduras self-efficacy theory provides a stable base for the process of integrating education on effective conflict resolution and interprofessional communication into curriculum of bachelor degree level nursing students.

The target population for this education was sophomore level nursing students in a bachelor degree program. These students have a beginner degree of knowledge related to the nursing field, but they have all previously encountered the stress of conflict in their lives. Empowering nursing students to understand and manipulate their reactions to conflict will allow them to gain confidence in this skill. Developing a sense of high efficacy early in the nursing program will allow students to strengthen their resilience through the development of strategies to reduce their vulnerability (Pines et al., 2014). With a reduced sense of vulnerability, the students will be able to provide safer and more efficient patient care. There are many challenges and accountabilities associated with healthcare, and nursing students' perceptions of their level of self-efficacy could either enhance or inhibit their performance in critical situations that require positive conflict resolution and interprofessional relation skills (Goldenberg et al., 2005).

According to Social Cognitive Theory, behavioral change is made possible by a personal sense of control. If people believe that they can take action to solve a problem, they become

motivated, and feel more dedicated to the task (Connor & Norman, 2005). In 1963, Bandura and

Walters wrote Social Learning and Personality Development, extending the boundaries of social

learning theory with the currently familiar principles of observational learning and indirect

reinforcement (Pajares, 2016).  Albert Bandura became aware that an element was missing from

the theories being implemented, as well as from his own social learning theories. In 1977 he

identified the missing element was self-efficacy and published "Self-efficacy: Toward a

Unifying Theory of Behavioral Change". Self-efficacy beliefs provide the base for human

motivation, happiness, and personal achievement, because unless people feel their actions can

guide them to the desired outcome, they are not motivation to persist when facing difficult

situations (Pajares, 2016).  Individuals form their self-efficacy beliefs by interpreting information

predominantly from four principle sources of information, verbal persuasion, performance,

vicarious experiences, and physiological state (Bandura, 1997). These four principles were

assimilated into development of the education program.

       Verbal persuasion leads individuals, by suggestion into believing that they can

successfully manage situations that have overwhelm them in the past (Bandura, 1997). When

others encourage and persuade and individual to accomplish a task, he or she is more likely to

develop trust in personal capability of accomplishing the task. Constructive feedback is linked to

verbal persuasion, as it is important in sustaining a sense of efficacy, and can help individuals

overcome insecurities (Bandura, 1997).

       An individual's performance in situations also has an effect on self-efficacy.  Successful

personal accomplishment, or mastery of experiences, leads to increased feelings of self-efficacy.

Individuals whom participate in activities or situations, construe the outcome of their actions,

and use this information to develop beliefs about their competence (Bandura, 1997).   These

skills are then used to participate in ensuing activities, or situations.  Typically, individuals'

actions are aligned with the beliefs created in previous experiences, and outcomes interpreted as

successful raise self-efficacy and those interpreted as failures lower it (Bandura, 1997). Allowing

positive outcomes to be achieved in a regulated setting, can thus increase feelings of self –

efficacy.

Although personal behavior shapes beliefs of self-efficacy, individuals can also form

their self-efficacy beliefs by vicarious experiences or by observing others perform in activities or

situations. The majority of social behavior is learned by observation through modeling (Bandura,

1986). Modeling is observing another individual perform a task or handle a situation. Modeling

can help individuals learn to perform the same way in a similar situation, and if success is met,

individuals are likely to feel they can succeed again (Pajares, 2016). Vicarious experience is

primarily influential when participants see comparisons in some attributes and assume that the

model's performance is indicative of their own capability (Connor & Norman, 2005).

Verbal persuasion, performance, and vicarious experiences are all impacted by the last

source individuals utilize to form their self-efficacy beliefs, and that is, physiological state.  It is

difficult to ignore stress when it is making you tremble, sweat and hyperventilate.  Individuals

measure their confidence level by the emotional state they experience as they contemplate an

action (Pajares, 2016).  Once formed, increased self-efficacy beliefs can alter human functioning

by enlisting cognitive, motivational, affective, and decisional processes through which changes

can be made and accomplishments realized (Bandura, 1997). As Bandura (1997) recognized,

people live in emotional environments that are brought on by their own beliefs, and these beliefs

can be altered.

**Definitions**

This educational program focuses on evidenced-based strategies used for teaching
conflict resolution and interprofessional communication that can be used in a clinical setting.
Some terms used in this education program are defined below for clarity.

- Conflict was defined as the "internal or external discord that results from differences
  in ideas values or feeling between two or more people" (Marquis & Huston, 2009, p.
  487). Conflict in this educational program in this educational program refers to
  conflict that happens in a clinical setting.

- Resolution was defined as the act of finding an answer or solution to a conflict,
  problem, etc.  In this educational program, the focus is on communication in a clinical
  setting with other health care professionals.  Thus, the terms conflict resolution and
  interprofessional relate directly to situations where nurses and other medical
  professionals are involved in communication when used in this presentation.

- Didactic teaching was defined as a method of teaching in which information is
  presented directly from the teacher to the pupil, where the teacher selects the topic of
  instruction, controls instructional stimuli, compels a response from the student, and
  evaluates student responses.  The instructor provides reinforcement for correct
  responses, feedback for incorrect ones, and adjusted teaching to provide student
  attainment of the objectives (Austin, 2013).

- Group work was defined as learning being completed by a group formed for
  cooperative learning in collaboration (Gaberson & Oermann, 2010). In this education
  plan, group work referred to groups of four to five students focusing on pre-

determined topic content related to interprofessional communication and conflict
resolution.

- Simulation was defined as the effort to duplicate the characteristics of a clinical
  situation so the experience is analogous to the real environment (Radovich et al.,
  2011).

- Interprofessional communication was defined as two or more health professions and
  their foundational disciplines jointly creating and fostering a collaborative learning
  environment, with the goal of developing knowledge, skills and attitudes that result in
  interprofessional team behaviors and competence ("CIAPE," 2008).

**Process**

The process for this paper required several steps towards developing an educational plan
for sophomore level nursing students in a bachelor degree program.  This process will educate
them on effective conflict resolution and interprofessional communication skills, thereby
encouraging students to implement these skills upon graduation and increase their effectiveness
in patient care.

Databases that were used to conduct the search include CINAHL, EBSCO, Pub Med, and
Medline.  Inclusion criteria for terms searched were (a) "nursing students", (b) "conflict
resolution", (c) "conflict management",(d) "education",  (e) "teaching methods", and (f)
"interprofessional relations". The search was limited to English text only, within the last 10
years. These limitations were proposed to insure that the teaching methods would be current and
evidence based. The final article selection is described in the "Review of Literature" section
below.

The evidence was critically analyzed to identify trends and themes that might be useful in the lesson presentation. The initial lesson plan was based on identified evidence and organized to enhance Self-Efficacy (Bandura, 1997).  The methods used for this educational plan included didactic teaching, small group work, and simulation. In these sections, students learned about styles of conflict resolution, determined their own style, and implemented these new skills in simulations developed to mimic conflicts in a clinical setting.

Prior to implementation of the educational plan to the sophomore nursing students, the project was first presented to the nursing faculty at small private university to solicit feedback and gain support.  Faculty verbal feedback following the project presentation and subsequent implementation informed the project evaluation.

**Review of Literature**

This literature review was performed to determine the principal way of teaching conflict resolution that will prepare bachelor degree seeking nursing students for effective interprofessional communication in post-licensure practice. The literature search as defined in the process section generated 72 articles for review. Preliminary abstract analysis resulted in the exclusion of 38 articles, as they were not relevant to teaching conflict resolution or interprofessional communication.  A complete article review on the remaining 34 articles resulted in 19 being omitted. The articles that were omitted did not have sufficient strength of evidence, were not published within the 10-year limit set, and/or did not contribute to evidence of possible teaching methods of the subject.  Fifteen articles were found to be applicable to the proposed topic

The Melnyk and Fineout-Overholt's scale was used to rate the strength of evidence in each article.  This tool is frequently implemented to rate levels of evidence for nursing literature

from Level I as the highest level to Level VII as the lowest level (Melnyk & Overholt, 2011).

Appendix A displays an outline of the rating system of the hierarchical of evidence scale. Table

1 (below) describes the level of evidence according to the Melnyk and Fineout-Overholt's scale,

and the number of studies implemented in this project.

Table 1. Leveling of Evidence Identified

| Level of Evidence | Research Design | No. of each |
|---|---|---|
| II | Randomized Control Study | 1 |
|  | Systematic Literature Review | 1 |
| III | Descriptive mixed method pre-post design study | 1 |
|  | Mixed methods pre-post research design study | 1 |
|  | Pre-post design study | 1 |
|  | Mixed methods exploratory pre post design study | 1 |
| IV | Descriptive cross-sectional research study | 1 |
| V | Non experimental pre-post survey design | 1 |
|  | Systematic literature review | 1 |
| VI | Development and implementation of educational program | 1 |
|  | Pre post design | 2 |
| VII | Expert opinion | 3 |

The evidence required for this project required clear description of the design and

implementation of educational methods for teaching conflict resolution to nursing students for

improved interprofessional communication.  Because of the specificity of the evidence needed,

several study designs were included in the review of literature. To enhance the strong points of

the evidence, this literature review was organized from highest levels to lowest levels, beginning

with the systematic reviews for an overview of previous literature.

**Level II Evidence**

Reeves, Perrier, Goldman, Freeth, and Zwarenstein (2013) updated their study from 2008 performing a systematic literature review for the years of 2006-2011 and acquired the leading evidence regarding the effectiveness of interprofessional education interventions compared to no education interventions.  Fifteen total studies were chosen to examine, including; randomized controlled trials, controlled before and after studies, and interrupted time series studies.  These studies were completed in diverse areas of clinical practice, and several types of interprofessional education interventions were implemented including, didactic presentations, discussions, interactive learning and role-playing simulations.

This systematic literature review identified several methods appropriate for teaching interprofessional communication and conflict resolution.  Didactic presentations described the different styles of conflict resolution and allowed participants to determine their own styles.  Small group discussions were implemented permitting participants to discuss their positive and negative feelings regarding interprofessional relationships.  Interactive learning and simulations presented participants with specific interprofessional relations and potential conflict situations and allowed them to develop their skills in a non-threating environment.

All 15 studies compared outcomes of those who received interprofessional interventions to those who did not in similar settings.  The studies' subjects included nursing students, patients and other health care professionals.  Outcomes for health care professionals including, skills development, changes in practice style, and interprofessional collaboration were measured objectively or self-reported using a validated instrument.  Positive outcomes for healthcare professionals and/or patients were reported for seven studies.  Mixed outcomes (positive and neutral) were reported by four, and no effect was reported by four studies.  .

Strengths for this study include the inclusion of randomized control trials, controlled

before and after studies and interrupted time series studies.  The review included an assessment

of the risk of bias, and a risk of bias summary for each article.  Weaknesses include the small

number of studies (n15), and no study compared an interprofessional intervention to a profession

specific intervention. The authors stated that more studies are needed to include qualitative

strands that examine process related to interprofessional education, and cost-benefit analysis

(Reeves, et al. 2013).

Interactive learning has been referred to in literature as a technique used to improve

communication skills, and increase learning satisfaction for faculty and students. Lin et al.

(2013) conducted a randomized control study comparing 26 first year female APN nurses in

Taiwan.   Participants filled out an interpersonal skills assessment tool and received a two-hour

instructional class consisting of theoretical knowledge and clinical skills of interpersonal

relationships.  Participants then role-played and interviewed a simulated patient with emotional

issues.  Interviews, interpersonal skills assessment tool and student learning satisfaction tools

were completed before and after the class. Block randomization was then used to divide the

group into two sections.  Group 1, -attended an intervention where they practiced the scenario

until there was consistency, had group discussions about the simulations, and were able to view

their interactions on video.  Group 2, -was deemed the control group, and received no

intervention.  Both groups again filled out and Interpersonal skills assessment tool and learning

survey.  Data collected by reliable and valid tools in this study, was divided into several

dimensions including personal manner, counseling and delivering information and interviewing.

The scores for counseling and delivering information was significantly improved for group 1.

All participants showing significant improvements on interprofessional and communication

skills with group 1 being slightly higher than the control group (8.50 vs 8.29). All participants also showed an increase in their learning satisfaction.

The strengths of this study included the randomized study design, the comparison of pre and post-test explained by dimension, and comparison of communication skills and learning satisfaction among the randomized intervention and control groups.   Weakness of this study included a small sample size of 26 participants. The authors also stated that there was contamination between the two groups and information was easily exchanged which could have altered the outcomes. To improve these shortfalls, future research could implement the following: (a) increased study sample size, with varied age and gender among participants, (b) investigations at multiple sites would prevent contamination, and (c) an evaluation of peers teaching should be include to ensure similar intervention.

**Level III Evidence**

Communication skills do not automatically improve with time but can progress with proper communication skills training. (Sargeant, MacLeod, & Murray, 2011). Sargeant et al. (2011) conducted a descriptive mixed method design study with 518 health professionals with nurses making up over 50% of the participants. The study was designed to improve patient care by enhancing professionals' communication skills.  Four interprofessional workshops that included focus groups were given topics included (a) Essential communication skills, where key types of communication skills were explored in a didactic teaching form, (b) Delivering difficult news and providing support, (c) When patients and families are angry and, (d) Managing conflict in the workplace.  The opportunity to observe and practice skills was provided by using simulation in pre-determined scenarios.  Small group discussions followed each simulation to enhance further discussion of the topic presented. Questionnaires were filled out pre and post

workshop to determine self-reported communication skills, and 3-month follow-up in changes of

practice were administered.  Pre/post paired *t*-tests of self-reported communication skills showed

significant improvements after all workshops ($p \leq 0.05$) and 92% (353/378) indicated one or

more changes they would be implementing into their communications practices (Sargeant et al.,

2011).

The large sample size was the main strength of this study.  The purpose of the study in

this article was vague which contributed to the overall lack of clarity related to utility of the

findings. Furthermore, the findings of this study were not clearly presented in the scant

discussion section, which only stated that communication skills and behavior could be improved

and instruction was valued. No demographics of the participants or diagrams with the data were

provided for further analysis of study findings.  In addition, the type and validity of the survey

tool was not addressed.

A mixed methods exploratory pre-post design study by Martin, Newby, Moran, Browne,

& Kumar (2016), implemented an interprofessional learning program that delivered six 90-

minute sessions to allied health professionals with less than two years' experience. The study

consisted of twenty-one participants from nine different health professions.  Demographics were

collected and an Interprofessional Socialization and Valuing scale was administered both pre and

post program intervention.  The program consisted of nine 90-minute sessions.  Learning

activities included real world case scenarios involving conflict, played out in a safe learning

environment of a simulation. Reflective debrief sessions were then held after each scenario.

Didactic teaching was also done to explain communication techniques and understanding roles of

other professions.

Quantitative and qualitative results demonstrated increases in self-perception of abilities, comfort in interprofessional interactions, and appreciation and understanding of interprofessional practice with the self-reported measures x2(1) = 42.4, *p*, .001.  Reflective summaries completed at the programs completion also demonstrated positive effects regarding the teaching methods of this study.

Limitations of this study included lacking demographics data of the participants, other than that 81% of participants were women. No graphs were given explaining the other demographics. The retention of the study demonstrated a shortfall, as only 67% of participants attended three or more sessions.

In a pre/posttest design study by Dillon, Noble, and Lawrence (2009), 68 nursing students and 14 medical students participated in an interdisciplinary, collaborative mock code learning exercise using a high-fidelity simulator that included a group discussion post simulation. The students were fourth year baccalaureate nursing students and third-year medical students in a large urban university. The Jefferson Scale of Attitudes Toward Physician-Nurse Collaboration (Hojat, cited in Dillon, Noble, and Lawrence (2009)) was used to measure medical and nursing students' perception of interprofessional communication.   This scale, along with open-ended questions developed by the authors, were administered both pre and post simulation.  A computer program was used to analyze statistical analysis and descriptive statistics were used to describe the demographic characteristics of the sample.  Anecdotal data was examined using a modified quasi-statistical analysis with manifest content analysis.

Common themes of increased understanding in teamwork and interprofessional collaboration emerged from the anecdotal data.  Jefferson scale scores noted that nursing students reflected a more positive attitude toward collaboration. Both quantitative and qualitative

discoveries supported the use of simulation as an educational strategy for interprofessional

education on collaboration.  Limitations of this study included inadequate completion of the

study, as only 40 students (nursing students *n*=31; medical students *n*=9) completed the posttest,

and the sample of nursing students was 78% female.

Cameron et, al.(2009) adopted a mixed method pre/post research design study to examine

changes in students' perceptions and attitudes related to interprofessional education (IPE)

following their participation in a learning session.  It was also used to explore the pedagogic

effectiveness of large-scale Interprofessional education sessions.   Undergrad health science

students (n=1,197) participated in the study. Each student completed a pre and post intervention

study using the Interprofessional Attitudes Questionnaire (IAQ) (Carpenter, cited in Cameron et,

al. (2009)) and the Interdisciplinary Education Perception Scale (IEPS) (Luecht, Madsen, &

Taugher, cited in Cameron et, al.(2009)). These instruments have been found to provide measure

of change in perceptions and attitudes about interprofessional education (Carpenter & Dickinson,

2008).

Students attended a 2.5-hour Interprofessional Education class that started with an

icebreaker so each of the students could get to know each other. Each group consisted of 15-20

students, and division occurred to make sure each group contained representation from several

disciplines. Didactic teaching, personal participation in a simulation of real life patient scenarios,

and debrief sessions were all utilized to demonstrate to students the importance of their role in

interprofessional communication and how different approaches can affect the situation. Students

then completed a post survey.

Results from this study were presented in quantitative and qualitative sections.

Quantitative data demonstrated that out of 14 total items in the IAQ, all but two displayed

positive change from pre to post intervention ($p<0.05$). Qualitative data demonstrated diverse opinions with positive feedback and suggestions for improvement on the process. Study limitations include the omission of demographics of the study. Although it was stated that demographics of the students were obtained, they were not mentioned in the study. Logistical factors with a large-scale IPE event may have overwhelmed some of the participants and although students represented numerous health professions, they were all from the same institution and results may not be duplicated at other institutions.

**Level IV Evidence**

A descriptive cross sectional research study by Seren & Ustun (2008) compared conflict resolution skills of nursing students enrolled in problem based learning (PBL) verses conventional curriculum. Problem based learning integrated communication skills into each of the four years of the program. Skills included self-awareness of conflict resolution skills, changing the process, team communication, and managing communication methods. These methods were taught by allowing students to take an active role in the learning process including participation in simulations and small group reflections. The conventional method included didactic teaching in a lecture setting.

The study included 225 students from a conventional method school and 141 students enrolled in a problem-based curriculum. The study collected data at the beginning of the second, third and fourth years. In this study PBL used a groundwork of integration and collaboration, and taught students to work together to generate solutions. Conventional learning focused on didactic teaching methods. The students were based in public universities in Istanbul and Izmir Turkey. A questionnaire containing 55 items from a Conflict Resolution Skills Scale ("CRN," 2005) that measures skills for conflict resolution, and five demographic questions was

administered to each student. The mean age of the students was 21.72 (range 18-32 years).  Only

two of the student were male. Scores were broken down by type of education and then further

broken down into subscales representing empathy, listening skills, social adaptation and anger

management, and students' year in school.  Overall students with a problem based learning base

(mean = 184.74 ± 14.27) had statistically significant higher scores compared to those taught by

the conventional method (mean = 176.65 ± 16.04).

This study determined that focusing on the development of communication skills can

enhance the conflict resolution skills of students and should be included in nursing curriculum.

Limitations of this study included the use of only two nursing programs and possible social

desirability bias that is associated with self-report questionnaires.  The cross-sectional nature of

the study prevented data collection over time.  The sample was almost exclusively female, which

further limited the generalizability of the findings.

**Level V Evidence**

A study by Waite and McKinney (2014) examined changes in conflict styles prior to and

after completing a leadership program.  A non-experimental pre-post survey design was used

with a non-randomized sample of 14 pre-licensure nursing students who had applied to be a

fellow in an undergraduate leadership program. The participants took the Thomas-Kilmann

conflict Mode Instrument (TKI) (Thomas & Kilmann, cited in Waite and McKinney (2014)) to

determine their conflict resolution styles in the first and last class. The intervention was

participation in weekly classes over 17 months, which were designed to provide experiential and

didactic activities to enhance leadership. Strategies used in the classes included didactic teaching,

reflective journaling, group assignments, peer evaluation, guest speakers and simulations.

Strategies focused on allowing students to understand different conflict resolution styles,

determining their conflict resolution style, and adapting or changing these styles in diverse clinical situations.

Paired sample correlations from the TKI indicated statistical significance at <0.5. Results indicated that the conflict style shifted from compromising to competing for the posttest. This information indicated that changes in conflict resolution styles can be realized through education and is useful to include content on the importance of not overusing or underusing specific styles. Furthermore, the research conducted that allowing students to recognize their preferred conflict styles and rallying development of other styles based on specific situations, helped to support their goal of becoming effective leaders (Waite & MicncKinney, 2014).

Strengths of this study included the results of specific changes in conflict style were presented in easy to understand graphs, which helped to determine the utility of the evidence for the purpose of this project. Limitations of this study include the small number of participants (N=14) for which no demographic were given about the subjects. All participants were also interested in enrolling in a leadership fellowship, and thus may have had a predisposition to specific conflict resolution skills. No control group was present to compare the research to and the validity of the TKI tool was not addressed in this study although it has been reported valid in a previous study (Pines, cited in Waite and McKinney (2014)).

Stone, Cooper & Cant (2013) presented a systematic review on the value of peer learning in undergraduate nursing. The method for searching was described in-depth in this article to include using quality criteria for qualitative and quantitative studies for the Critical Skills Appraisal program. The author's vigorous selection process included assessing validity, biases, methodology, sample type, selection method, attrition rate and levels of evidence. Eighteen studies that were published between the years of 2001-2010 were selected. Themes and

subthemes were then determined and explained comprehensively. Results of characteristics of studies were broken down by demography, study type, analysis tools and tests, effects of peer learning and utilization.  Each section was explained in detail and comparison if the studies were made.

This research showed that undergraduates do benefit from peer learning as evidenced in 16 of the 18 studies. Improvement was noted in both objective effect and subjective assessments (self-rated increase in confidence).  Learning from peers, including in simulation experiences, was shown to be acceptable to students, decrease anxiety, and that learning occurred more effectively when there was socialization.   Students who taught other students developed a higher self-confidence in themselves and were able to problem solve more independently with their patients.  The review also identified two disadvantages found in the results that include learning gaps that may occur because learning curves develop in students differently, and peer teaching may be implemented wrong without the proper supervision.

Stone et al. (2013) analyzed each article separately in an inclusive table, which added to the thoroughness of the review.  Noted limitations included inclusion criteria of only studies published in English and the mix of study designs, location-or topic specific, and indirect data collection methods limited direct comparison between studies. The overall positive impact of peer learning was clearly presented in this review.

**Level VI Evidence**

An article by Wagner, Liston, and Miller (2011) described the development and implementation of an educational program designed to promote interprofessional communication between medical students and nursing students. Ten medical students and 10 nursing students participated in an end of life simulation with live actors as the family and patient.  Each student

was given a different information on the patient that intentionally led to diverse perceptions and possible conflicts. The scenarios were played out, viewed on video and a group discussion followed.

A 5-point Likert scale was used to determine the value of this learning exercise. All students found this to be a valuable learning tool and felt empowered in relation to their interprofessional communication and conflict resolution skills. Preconceptions about professional attitudes and knowledge base of nurse's verses doctors were also examined in the small group sessions and mutual respect was further developed. Barriers of this project included the complexity of scheduling nursing and medical students and costs of hiring real actors. This project could be improved by implementing a validated data collection tool that provided more information and also measured pre and post intervention statistics.

A report by Curran, Heath, Kearney, & Button (2010) outlined the evaluation of a one-day interprofessional collaboration workshop for post-licensure health care providers and pre-licensure trainees at Memorial University of Newfoundland, Canada. A pre-post study design was utilized. Participants completed a pre and post survey using two scales, which were validated in the literature and measured self-reported teamwork abilities and attitudes towards teamwork. Participates were then contacted via phone 6-8 week following the workshop with a satisfaction survey.

Participants (n=134) attended one, day long workshop, offered throughout an 8 week period and included 46 allied health professionals, 34 post graduate residents, 33 nursing staff, and 20 other professionals. Workshop topics included didactic teaching, videos, small group discussions and case study exercises. The topics covered included different styles and personal

characteristics of effective interprofessional communication, understanding and valuing the role

of each practitioner, and managing client health issues in a collaborative manner.

Results obtained demonstrated that participants communicated a high level of satisfaction

with 88.5% agreeing or strongly agreeing that the workshop had been meaningful to their career,

and 86.9% would recommend the workshop to others.  A significant pre to post change was

noted in the attitudinal scores of the residents indicating a medium effect size.  These findings

suggested that this interprofessional education workshop was successful in enhancing residents

attitudes regarding teamwork and that it was an acceptable learning experience for allied health

and nursing staff.

Limitations of this study include the omission of the demographics for the participants, so

the number of years of employment may have played a role in their attitudes of interprofessional

communication and education regarding this topic.  The high rate of satisfaction and

recommendation demonstrated that this was a positive learning activity despite the potential in

differences in levels of experience among the participants.

Dacey, Murphy, Anderson, & McCloskey (2010) used a pre-post design study to develop

a pilot interprofessional education (IPE) course. Pre and posttest data were analyzed comparing

an intervention group that included students enrolled in the course versus a control group of

randomly selected students matched for year and program that did not take the course.  Ten

students from four programs were recruited to take the class. The makeup of the students in the

class consisted of two health psychology students, two baccalaureate-nursing students, three

premedical students and three pharmacy students. Pre and post assessments were completed

using the Readiness for Interprofessional Learning Scale (Reid et al. as cited in Darcey et, al.

(2010)) to determine students' attitudes toward interprofessional learning.  For the students

taking the class, journal entries and assignments were also reviewed for themes. Students

attended weekly sessions that were integrated into existing curriculum. Topics taught included

developing awareness of different and personal styles of interprofessional communication and

team building skills.  Teaching methods included role–playing, didactic lectures, journaling, and

group discussions.  The in class activities promoted team dynamics, and written assignments

focused on role and communication differences and methods to enhance interprofessional

communication.  Compared to the control group, students who attended the course had positive

attitudes towards team collaboration both pre and post assessment. Students who participated in

the class felt less isolated and more like an intricate part of the group after implementing the

strategies suggested in the class.  Qualitative findings included themes of increased confidence,

communication, and respect among professions. Limitation of this study included the pilot study

purpose and as such the number of subjects (n=10) was low, including the small number of

nursing students (n= 2). A strength of this article for the purpose of this project was that it

identified many styles of teaching, and assessment of the course utilized a pretest-posttest format

and control group.

**Level VII Evidence**

An article by Altmiller (2011) presented an expert opinion on strategies that aid in

conflict resolution for nursing students.  Three strategies were introduced, cognitive rehearsal,

reframing strategies, and de-escalation techniques for aggressive behaviors. Cognitive rehearsal

allows nurses to become aware of their personal responses to conflict, learn about different

responses and implement these responses. Thirteen specific situational responses for students to

use were mentioned in the article.  Reframing strategies teaches nurses to identify unsafe

situations early and this article provided specific techniques to changes these situations through

communication. Using a didactic teaching method, de-escalation techniques were discussed in relation to specific clinical situations.  The focus of this section was educating students to understand and modify their own conflict resolutions skills as necessary to maintain civility and self-esteem in situations involving conflict.

Implementation of these suggested techniques included journaling and discussing situations that have caused conflict.  Altmiller (2011) also stated that putting strategies into action in simulated settings allows others in the group to observe, learn about different conflict resolution approaches, and understand that they have the ability to make a change in their communication methods.  Limitations for this article included that it was not a study, and consequently there was no evaluation presented regarding the effect that these strategies have on student nurses.  The teaching methods of simulation, identification of conflict resolution skills, and group discussion align with other reliable evidence presented in this literature review.

An article by Sullivan & Godfrey (2012) provided a summary of recent significant accomplishments that helped to promote healthcare through collaboration and teamwork.  This article also addressed interventions that can be utilized by nursing schools to help nursing students develop skills, attitudes and knowledge. Sullivan & Godfrey (2012) stated that innovative and effective interprofessional education (IPE) learning activities must be created for clinical practice experiences and classroom simulations. In the classroom, lesson plans should include information on explaining different types of interprofessional interaction skills, and provide examples of actions that promote effective teamwork.  Content should be delivered by didactic lectures, small group discussions, reflective journaling and interactive exercises using simulation.  Simulations can be done in a high fidelity setting or using role-playing for students. Sullivan & Godfrey (2012) state that "simulation is a powerful tool for IPE" (Sullivan &

Godfrey, 2012, p. 61).  Content should be presented with interprofessional groups of students

being portrayed in the simulations.

It was also noted that strategies and tools to enhance performance and patient safety

(TeamSTEPPS), is an excellent reference for educators in the area of collaboration and

interprofessional relation skills. TeamSTEPPS is "an evidence-based set of teamwork tools,

aimed at optimizing patient outcomes by improving communication and teamwork skills among

health care professionals".

An expert opinion article by Thornby (2006) stated that interprofessional communication

is a skill that must be developed just like any other nursing skill.  Thornby (2006) stated that the

first step in skill development is self-assessment or determining your current style and

effectiveness as a communicator in conflict situations.  Thornby (2006) strongly suggested that

survey tools be used to determine each individual conflict communication style and to teach the

aspects of other styles to the students. This author also suggested that listening and reflecting on

communication can be beneficial to the learning process.   Thornby (2006) concluded that

individuals are responsible to control or change his or her behavior in situations where

communication has broken down, and this can be done through education.

## Summary

This literature review identified no level I evidence and only two level II studies.  Level

III was the most common level of evidence identified in this search.  The most common method

used was pre-post survey.  Seven studies that used pre post survey to determine that students'

self-perception and interprofessional skills related to conflict resolution can be improved with

education (Cameron et al., 2009; Curran et al., 2010; Dacey et al., 2010; Dillion et al., 2009;

Martin, et al., 2016; Sargeant et al., 2011; Waite & MicncKinney, 2014).   The similarities of the

findings among these studies included that students understanding of different types of

communication skills, as well as recognizing their own style, is an important first step of

increasing your knowledge of interprofessional relationships and conflict resolution skills.  These

seven studies also determined that didactic teaching and interactive learning, such as small

groups and simulations, aided in increasing the students' knowledge and/or self-confidence in

relation to interprofessional communication.  The studies differed in the type of data collection

tools used to determine students interprofessional communication and conflict resolution style,

the length and the order of the educational intervention, and on the number of nursing student

participants in the studies.

   Additional studies used a variety of methods to study the outcomes of educational

intervention on students' interprofessional communication and conflict resolution skills.  These

findings and credible expert opinion, also determined that self-awareness and change in

interprofessional communication and/or conflict resolutions skills could be achieved through

educational interventions.   These findings provided additional evidence that determined the

importance of recognition of different styles of interprofessional communication, identification

of personal style, and the necessity of practicing these skills, as an important step in developing

student's proficiency in interprofessional communication and conflict resolution skills.  The

findings noted that many methods can be used to develop effective educational lessons and

facilitate skill development for effective interprofessional communication and conflict resolution.

Some of the methods identified include: (a)didactic teaching-,; (b) survey tools to determine

personal conflict resolution style-,; (c) interactive learning such as small group discussions and

simulations-,; and (d) journaling.

**Discussion**

The discussion section will describe how these findings were integrated to create a lesson plan, which was framed by the Self Efficacy theory to meet the goal of this project.  Ultimately, the desired outcome of the lesson plan was to increase nursing student's' proficiency in interprofessional communication and conflict resolution skills.

**Interpretation**

The analysis of the findings in the literature review necessitates understanding on how these findings will be applied to the implementation of this lesson plan.  This includes determining what information is important to receive, and what types of teaching methodologies should be used to deliver this information.

There was strong evidence in the literature that that having students become aware of different styles of interprofessional communication and conflict resolution behaviors, and recognizing their own style, is a beneficial first step in students development of these skills (Altmiller, 2011; Curran et al., 2010; Dacey et al., 2010; Lin et al., 2013; Martin et al., 2016; Sargeant et al., 2011; Seren & Ustun, 2008; Sullivan & Godfrey, 2012; Thornby, 2006; Reeves et al., 2013; Waite & MicncKinney, 2014).  The method of teaching awareness and recognition of personal styles of various styles of interprofessional or conflict resolution skills, was initialized by a didactic teaching sessions as determined by the literature review, and included having students fill out survey forms for the determination of personal traits. Bandura (1997) stated that people search for models that demonstrate competencies that they desire. Providing examples in a power point and didactic lecture to illustrate the different styles of interprofessional and conflict resolution skills has been integrated into this lesson plan.  The Thomas Kilmann conflict mode instrument (2016) was determined to be an accurate and reliable instrument, and as such as

it was suggested for use in the lesson to help students discover their own conflict resolution style, and will give them a known base level of their skills in this area.  According to Banduras self-efficacy theory (1997), seeing and understanding behaviors teach observers effective strategies and skills for managing environmental demands.

Role-playing in a simulated scenario was also determined by the literature as a way to increase interprofessional and conflict resolution skills (Altmiller, 2011; Curran et al., 2010; Dacey et al., 2010; Lin et al., 2013; Martin et al., 2016; Sargeant et al., 2011; Seren & Ustun, 2008; Sullivan & Godfrey, 2012; Thornby, 2006; Reeves et al., 2013; Wagner, Liston, & Miller, 2011; Waite & MicncKinney, 2014).  Simulation allows students to implement the strategies that they learn in the didactic teaching section in a non-threatening learning environment.  Two attempts of the same simulation are included in this lesson plan.  One before and one after the small group discussions. Reducing stress reactions allows students to alter their negative emotional tendencies and modify their self-efficacy beliefs (Bandura, 1994).  Having students develop confidence in their interprofessional and conflict resolution skills in this environment, and understanding their ability to modify them, will increase the probability of using these new skills in a professional setting and will create positive outcomes.

Social persuasion strengthens people's beliefs that they have the ability to succeed (Bandura, 1994). Small group discussions post simulations have been acknowledged by the literature as an effective tool to use in the education of interprofessional and conflict resolution skills (Altmiller, 2011; Curran et al., 2010; Dacey et al., 2010; Lin et al., 2013; Martin et al., 2016; Sargeant et al., 2011; Seren & Ustun, 2008; Sullivan & Godfrey; 2012, Thornby, 2006; Reeves et al., 2013; Wagner, Liston, & Miller, 2011).  This lesson plan included small group discussions following each simulation allowing students to discuss the positive and negative

outcomes of the simulation, and develop a plan on how to implement behavioral changes in the second simulation and increase team communication. Perceived improvements in the development of self-efficacy leads to people trying harder to succeed using these skills (Bandura, 1997).

## Outcomes/Dissemination

### Student Lesson Plan

Nurse educators are responsible for providing nursing students with a valuable knowledge base that will help them successfully segue into a health care team (Hartman & Crume, 2014). A portion of this includes educating nursing students about conflict, allowing them to discover their personal conflict style, and giving them the opportunity to observe, practice, and implement change into communication that involves conflict. The lesson plan developed for this project with the goal of educating students on interprofessional communication and conflict resolution provides a foundation anchored in evidence based research and will provide an example for nurse educators to implement into their instruction. This subsection will integrate the evidence to provide rationale for the sample lesson plan with the following objectives:

Upon completion of this lesson, the student will:

1.      Identify factors that cause conflict in the profession of nursing.

2.      Discuss the consequences that unresolved conflict can have.

3.      Identify their personal style of conflict resolution.

4.      Describe the styles of conflict resolution.

5.      Demonstrates interprofessional communication and conflict resolution skills.

6.      Discuss characteristics of interprofessional communication techniques, which may account for sources of impeding conflict resolution.

7.      Develop a strategy as needed for personal changes in interprofessional communication

         and conflict resolution situations.

         **Negative consequences of poor interprofessional conflict.**

Nursing students must understand that conflicts and poor interprofessional skills may

result in negative consequences (Kantek & Kartal, 2015). If not successfully managed, problems

with interprofessional and conflict communication can cause students increased stress, decrease

in success, and increasing rates of absenteeism (Kantek & Gezer, 2009). Unreliable conflict

resolution and interprofessional communication skill can also lead to decreased patient

satisfaction, and an increase in lawsuits (Waite & McKinney, 2014). Understanding reactions of

student nurses towards conflict is essential to develop efficient conflict management methods

(Chan, et al., 2014; Sportsman, 2007).  Educating students on the specifics of these issues is the

starting point of this lesson plan.  The preferred method mentioned in the literature for the

delivery of this information is a form of didactic teaching (Altmiller, 2011; Curran et al., 2010;

Dacey et al., 2010; Lin et al., 2013; Martin et al., 2016; Sargeant et al., 2011; Seren & Ustun,

2008; Sullivan & Godfrey, 2012; Thornby, 2006; Reeves et al., 2013; Waite & MicncKinney,

2014).  Students need to believe that they can produce desired positive effects on a situation by

their actions, or the will have little incentive to act (Bandura, 1997).  Helping students develop

this knowledge will empower them to use their newly acquired ability and modify the outcome

of negative interprofessional and conflict situations.  If a student's self-efficacy is amplified in

regards to their ability to produce a positive change in a negative communication situation, there

level of effort and perseverance will increase (Bandura, 1997). Nurse educators have the

responsibility to help students become prepared to change negative communication situations

and make a difference that will benefit many people.

**Self-assessment of communication and conflict resolution styles.**

A common theme in the literature indicated that utilizing student self-assessment to determine their current effectiveness as a communicator and manager of conflict, and to realize areas where growth in these skills, is a necessary step in the education of interprofessional communication and conflict resolution skills. (Kantek & Kartal, 2015; Thornby, 2006). Integrating a tool that assists students to determine their styles of communication and conflict resolution, was recommended by literature (Altmiller, 2011; Curran et al., 2010; Dacey et al. 2010; Lin et al, 2013; Martin et al., 2016; Sargeant et al.,2011; Seren & Ustun, 2008; Sullivan & Godfrey, 2012; Thornby, 2006; Reeves et al., 2013; Waite & McKinney, 2014).  The recommendations of self-assessment align with self-efficacy beliefs that determine how people think, feel, and motivate themselves (Bandura, 1994). Specifically, Bandura's (1997) self-efficacy theory recommends that instruction should be established for people to judge their operative capabilities as of now to start with a baseline.   Although several tools were identified for this process, the Thomas –Kilmann conflict mode instrument was noted to be a reliable tool in this literature review (Waite & McKinney, 2014; Kantek & Kartal, 2015; Brown, 2012).

**Conflict resolution education.**

After student self-assessment of their current ability to communicate and resolve conflict, the next step included in the lesson plan supported by evidence and found in the literature for interprofessional and conflict resolution education, is to help students attain knowledge of the different styles of conflict resolution skills, and determine how to integrate these skills into different situations.  A recommended resource that supplies videos and handouts for this important education is TeamSTEPPS ("STEPPS," 2016). This resource has been noted within the literature to be an excellent reference for educators in the area of collaboration skills and has

been tested in many settings (Altmiller, 2011; Sullivan & Godfrey, 2012).  Providing this

information is not all, it also requires empowering students to use the newly developed skills in

conflict situations. This will allow students to increase their perceived self-efficacy after

successful application of communication and conflict resolution skills. "Perceived self-efficacy

is not a measure of the skill one has, but a belief about what once can do under different sets of

conditions with whatever skills one possesses" (Bandura, 1997, p. 37).

**Interprofessional simulation.**

Bandura (Bandura, 1994) stated that creating strong sense of self-efficacy can be

obtained through mastery of experiences, and also through vicarious experiences. The literature

regarding interprofessional communication and conflict resolution education aligns with this

theory. Including simulations for this purpose is a recommended segment of the lesson plan.

Interventions supported by the evidence to achieve a positive change in interprofessional and

conflict resolution skills, include implementation of simulations that allow students to observe

and practice implementation different styles of conflict resolution skills into predetermined

conflict situations in a safe non-threating simulation environment. (Altmiller, 2011; Curran et al.,

2010; Dacey et al., 2010; Lin et al., 2013, Martin et al.; 2016, Sargeant et al.; 2011, Seren &

Ustun, 2008; Sullivan & Godfrey, 2012; Thornby, 2006; Reeves et al., 2013; Wagner, Liston, &

Miller, 2011; Waite & MicncKinney, 2014). Through simulation, students gain confidence in

themselves as they learn to work together successfully in active participation, but they are also

able to observe others skills in interprofessional communication and conflict situations. Seeing

people similar to oneself succeed by persistent effort, raises observers' beliefs that they also have

the ability to master comparable activities (Bandura, 1994).

**Small group discussion and simulation debriefing.**

Curricular development should include discussion of how students perceive conflict, as well as enact communication behavior within conflict situations (Hartman & Crume, 2014). Evidence within the literature review demonstrated that small group participation increases knowledge of personal communication skills and strategies (Altmiller, 2011; Curran et al., 2010; Dacey et al., 2010 ;Lin et al., 2013; Martin et al., 2016; Sargeant et al., 2011; Seren & Ustun, 2008; Sullivan & Godfrey, 2012; Thornby, 2006; Reeves et al., 2013; Wagner, Liston, & Miller, 2011). Social persuasion is a way of strengthening people's self-efficacy beliefs, and when persuaded verbally that they possess the capabilities to master a task, are more likely to put forth a greater effort (Bandura, 1994). This lesson plan included small group discussions following each simulation allowing students to discuss the positive and negative outcomes of the simulation, and develop a plan on how to implement behavioral changes that increase team communication.

**Lesson plan summary.**

Bandura (Bandura, 1994) contended that that a person's self-efficacy, or belief of their capabilities, motivates behavior in challenging situations. The overarching goal of this lesson plan was to increase students' self-efficacy related to interprofessional communication and conflict resolution skills, which will ultimately encourage them to make positive changes in their professional lives and future work environments. The evidence that was identified in the extensive literature review bolstered the strength and currency of the proposed lesson plan, which included learning in all three domains of learning. The lesson plan began with the cognitive and affective domains in which students became aware of the negative implications of interprofessional conflict and reflection, and established an individual baseline for conflict

resolution. Cognitive learning continued in the conflict education, while psychomotor learning occurred during the simulation event and the learning wrapped up with additional affective learning within small groups. Incorporating education in all domains of learning helped to assure students had the opportunity to gain competency that would promote effective interprofessional teams.

**Staff Presentation Plan**

This project and associated lesson plan was presented to the nursing faculty of a small private university during a weekly staff meeting for consideration of possible use in their nursing program. The PowerPoint used for this presentation can be found in appendix B.

<div align="center"><b>Implications for Nursing</b></div>

A sentinel alert from the Joint Commission in 2008 ("Sentinel Alert," 2008) determined that poor interprofessional communication and conflict resolution skills can lead to poor patient outcomes, increased costs, and lower retention rates in the medical field. The QSEN core competency, teamwork and collaboration, addresses this issue and recognizes skills that guide nurse educators on the implementation of these issues into their curriculum ("QSEN," 2016). The competencies state that nurses must be able to demonstrate awareness of their strengths and limitations and initiate a plan for self-development in relation to interprofessional communication skills ("QSEN," 2016).

Gaffney ("ANA," 2016) says, "The American Nurses Association (ANA) sees conflict engagement as crucial to patient safety and wants to help nurses create an optimal team environment". The states that policies regarding the exact teaching methodologies focusses, and proper potential level of implementation, should be developed by the individual institutions. To achieve this, nurse educators must put an emphasis on including interprofessional education in undergraduate nursing programs (Chan, Sit, & Lau, 2014; Begley, 2008; Seren & Ustun, 2008).

A policy that addresses the addition of interprofessional communication and conflict resolution education into the BSN curriculum, will enable students to start their career with a solid base of self-awareness and knowledge they can integrate to improve their communication techniques. As nurse educators it our responsibility to advocate for the implementation of these policies.

In a systematic review, Reeves (Reeves et al., 2013), determined that despite a growth in the number of studies involving interprofessional communication and conflict resolution skills related to nursing education, most research does not include sufficient specific recommendations for teaching approaches. The addition of random control trials with demanding randomization procedures, appropriate control groups and larger sample sizes, would improve the evidence base for education methods related to interprofessional communication and conflict resolution for nursing students (Reeves et al., 2013). Further research is needed to determine the effectiveness of interprofessional communication and conflict resolution education as it relates to these skills being implemented in the health care community. As nursing practice evolves, nursing education must continue to develop and implement competencies that address quality and safety, this development can only be addressed using evidenced based practice provided by adequate continuing research.

<div align="center">**Summary and Conclusion**</div>

Negative perceptions of conflict engagement are shared in the medical filed (Robbins & Judge, 2013). Unreliable conflict resolution can lead to decreases in morale, increasing turnover rates, decreased patient satisfaction, and an increase in lawsuits (Waite & McKinney, 2014). In order to be effective in their role, professional nurses must possess well-developed conflict resolution skills and therefore, nurse educators have a responsibility to teach nursing students evidence-based strategies for conflict resolution. This project developed an evidenced based

method for teaching interprofessional communication and conflict resolution that best prepares bachelor degree level nursing student for effective interprofessional communication in post-licensure practice. According to Banduras self-efficacy theory (1997), which this project was grounded in, seeing and understanding behaviors teach observers effective strategies and skills for managing environmental demands.  Bandura's self-efficacy theory (1997) guides nursing faculty in explaining communication complications, provides the students with a baseline interpretation of their conflict resolution style, and reinforces communication strategies that provide constructive and positive ways to communicate.

With the knowledge regarding interprofessional communication and conflict resolution skills, nurses and other team members can improve outcomes for the process and will improve interprofessional communication.  This process begins with students understanding what causes conflict and the different methods of conflict resolution.

Re-conceptualizing conflict requires a strengthened motivation to change.  Illustrating the nature of conflict in team and focusing on collaboration is one way to strengthen this motivation (Hartman & Crume, 2014).  Nurse educators are responsible for providing nursing students with a valuable knowledge base that will help them successfully transition into a health care team (Hartman & Crume, 2014).  A portion of this effort includes educating nursing students about conflict, allowing them to discover their personal conflict style, and giving them the opportunity to observe, practice, and implement change into communication that involves conflict.  This lesson plan for educating students on interprofessional communication and conflict resolution provides a foundation anchored in evidence based research for nurse educators to implement into their instruction.

**References**

Altmiller, G. (2011, September/October). Teaching clinical nurses specialist students to resolve

conflict. *Clinical Nurse Specialists*, 260-262.

Austin, S. (2013). Didactic approaches. In F. R. Volkmar (Ed.), *Encyclopedia of autism spectrum*

*disorders* (pp. 947-948). http://dx.doi.org/10.1007/978-1-4419-1698-3_2005

Bandura, A. (1986). *Social foundation of thought and action: A social cognitive theory*.

Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (1994). Self-efficacy. In V. Ramachaudran (Ed.), *Encyclopedia of human behavior*

(Vol. 4, pp. 71-81). New York, NY: Academic Press.

Bandura, A. (1997). *Self-efficacy the exercise of* control. New York, NY: W.H. Freeman and

Company.

Begley, C. M. (2008, September 24). Developing inter-professional learning tactics, teamwork

and talk. *Nurse Education Today*, *29*, 276-283.

http://dx.doi.org/10.1016/j.nedt.2008.09.006

Brinkert, R. (2010). A literature review of conflict communication causes costs, benefits and

interventions in nursing. *Journal of nursing management*, *18*, 145-156.

http://dx.doi.org/10.1111/j.1365-2834.2010.01061.x

Cameron, A., Rennie, S., DiProspero, L., Langlois, S., Wagner, S., Potvin, M. ... Reeves, S.

(2009, Winter). An introduction to teamwork. *Journal of Allied Health*, *38(4)*, 220-226.

Carpenter, J., & Dickinson, H. (2008). *Interprofessional Education and Training*. Bristol, UK:

Policy Press.

Center for advancement of interprofessional education. (2008). Retrieved from

http://www.caipe.org.uk

Center for advancement of interprofessional education. (2016). Retrieved from

    https://www.caipe.org/

Chan, J. C., Sit, E. N., & Lau, W. M. (2014). Conflict management styles, emotional intelligence

    and implicit theories of personality of nursing students: a cross sectional study. *Nurse*

    *Education Today*, *34*, 934-939.

    http://dx.doi.org/http://dx.doi.org/10.1016/j.nedt.2013.10.012

Conflict Resolution Network 12 Skills Approach. (2005). Retrieved from

    http://www.crnhg.org/twelveskills.html.

Connor, M., & Norman, P. (Eds.). (2005). *Predicting health behavior: Research and practice*

    *with social cognition models* (2nd ed.). Berkshire, England: Open University Press.

Curran, V. R., Heath, O., Kearney, A., & Button, P. (2010, May). Evaluation of an

    interprofessional collaboration workshop for post-graduate residents, nursing and allied

    health professionals. *Journal of Interprofessional Care*, *24(3*), 315-318.

Dacey, M., Murphy, J. I., Anderson, D. C., & McCloskey, W. W. (2010). An interprofessional

    service-learning course: Uniting students across educational levels and promoting patient

    centered care. *Journal of Nursing Education*, *49*, 696-699.

Dillion, P. M., Noble, K. A., & Kaplan, L. (2009, March/April). Simulation as a means to foster

    collaborative interdisciplinary education. *Nursing education research*, *30(2*), 87-91.

Dyess, S. M., & Sherman, R. O. (2009, September). The first year of practice: New graduate

    nurses' transitions and learning needs. *The Journal of Continuing Education in* Nursing,

    *40(9*), 403-410.

Framework for action and interprofessional education & collaborative practice. (2010). Retrieved

    from http://apps.who.int/iris/bitstream/10665/70185/1/WHO_HRH_HPN_10.3_eng.pdf

Gaberson, K. B., & Oermann, M. H. (2010). *Clinical teaching strategies in nursing* (3rd ed.).

    New York, NY: Springer Publishing Company.

Goldenberg, D., Andrusyszyn, M., & Iwasiw, C. (2005, July). The effect of classroom simulation

    on nursing students' self-efficacy related to health teaching. *Journal of Nursing*

    *Education*, *44(7)*, 310-314.

Hartman, R. L., & Crume, A. L. (2014). Educating nursing students in team conflict

    communication. *Journal of Nursing Education and Practice*, *4(11)*(11).

Kantek, F., & Gezer, N. (2009). Conflict in schools: Student nurses' conflict management styles.

    *Nurse Education Today*, *29*, 100-107. http://dx.doi.org/10.1016/j.nedt.2008.07.007

Kantek, F., & Kartal, H. (2015). Conflict management in student nurses: Systematic review.

    *Journal of Educational and Instructional Studies*, *5(3)*, 63-67.

Lin, E. C., Chen, S., Chao, S., & Chen, Y. (2013). Using standardized patient with immediate

    feedback and group discussions to teach interpersonal and communication skills to

    advanced practice nursing students. *Nurse Education Today*, *33*, 677-683.

Marquis, B. L., & Huston, C. J. (2009). *Leadership roles and managements functions in nursing:*

    *Theory and application* (6th ed.). Philadelphia, PA: Lippincott Williams and Wilkins.

Martin, P., Newby, M., Moran, M., Browne, M., & Kumar, S. (2016, July). Interprofessional

    scenario-based learning for new graduates in a regional setting: A piolet study. *Internet*

    *Journal of Allied Health Sciences and Practice*, *14(3)*, 1-10.

Melnyk, B. M., & Overholt, E. F. (2011). *Evidenced based practice in nursing and health care:*

    *A guide to best practice* (2nd ed.). Retrieved from http://file.zums.ac.ir/ebook/208-

    Evidence-Based%20Practice%20in%20Nursing%20&%20Healthcare%20-

    %20A%20Guide%20to%20Best%20Practice,%20Second%20Edition-Be.pdf

Ogunyemi, D., Fong, S., Elmore, G., Korwin, D., & Azziz, R. (2010, March). The association

between residents' behavior and the Thomas-Kilmann conflict mode instrument. *The

Journal of Graduate Medical* Education, 118-125. http://dx.doi.org/10.4300/JGME-D-

09-00048-1

Pajares, F. (2016). Overview of social cognitive theory and of self-efficacy. Retrieved from

https://www.uky.edu/~eushe2/Pajares/eff.html

Pender, N. J., Murdaugh, C. C., & Parsons, M. (2006). *Health promotions in nursing* practice

(4th ed.). Saddle River, N.J.: Pearson Education, Inc.

Pines, E. W., Cook, J. D., Richardson, C., Rauschhuber, M. L., Norgan, G. H., Canchola, L., &

Jones, M. E. (2014, March/April). Enhancing resilience, empowerment, and conflict

management among baccalaureate students. *Nurse Educator*, *39(2)*, 85-90.

QSEN competencies. (2016). Retrieved from http://qsen.org/competencies/pre-licensure-

ksas/#teamwork_collaboration

Radovich, P., Palaganas, J., Kiemeney, J., Strother, B., Bruneau, B., & Hamilton, L. (2011,

October). Enhancing leadership through simulation. *Critical Care Nurse*, *31(5)*, 58-64.

Reeves, S., Perrier, L., Goldman, J., Freeth, D., & Zwarenstein, M. (2013). Interprofessional

education: effects on professional practice and healthcare outcomes (update) (Review).

*Cochrane Database of Systematic Reviews*, 1-47. Retrieved from

http://s3.amazonaws.com/academia.edu.documents/37600384/IPE_Cochrane_Review_up

date_2013.pdf?AWSAccessKeyId=AKIAJ56TQJRTWSMTNPEA&Expires=148175563

1&Signature=ofc%2BYKdoIxeQPbYOD24teaUDmn4%3D&response-content-

disposition=inline%3B%20filename%3DReeves_S_Perrier_L_Goldman_J_Freeth_D_Z

w.pdf

Robbins, S. P., & Judge, T. A. (2013). *Organization behavior* (15th ed.). Newark, NJ: Pearson

      Education Inc.

Sargeant, J., MacLeod, T., & Murray, A. (2011). An interprofessional approach to teaching

      communication skills. *Journal of Continuing Education in the Health Professions*, *31(4)*,

      265-267.

Sentinel event alert, issue 40: Behaviors that undermine a culture of safety. (2008). Retrieved

      from

      https://www.jointcommission.org/sentinel_event_alert_issue_40_behaviors_that_undermi

      ne_a_culture_of_safety/

Seren, S., & Ustun, B. (2008). Conflict resolution skills of nursing students in problem based

      compared to conventional curricula. *Nurse Education Today*, *28*, 393-400.

Sportsman, S. (2007, May-June). Conflict management styles in the health professions. *Journal*

      *of Professional Nursing*, *23(3*), 157-166.

      http://dx.doi.org/10.1016/j.profnurs.2007.01.010

Stone, R., Cooper, S., & Cant, R. (*2013*). The value of peer learning in undergraduate nursing

      education: A systematic review. *International Scholarly Research Network Nursing*,

      2013(Article ID 930901), 1-10.

Sullivan, D. T., & Godfrey, N. S. (2012). Preparing nursing students to be effective health team

      partners through interprofessional education. . *Creative Nursing*, *18(2)*, 57-63.

TeamSTEPPS. (2016). Retrieved from http://www.ahrq.gov/teamstepps/index.html

The essentials of baccalaureate education for professional nursing practice. (2016). Retrieved

      from http://www.aacn.nche.edu/education-resources/BaccEssentials08.pdf

Thomas-Kilmann Conflict Mode Instrument. (2016). Retrieved from

http://www.kilmanndiagnostics.com/overview-thomas-kilmann-conflict-mode-

instrument-tki

Thornby, D. (2006). Beginning the journey to skilled communication. *AACN Advanced Critical*

*Care*, *17(3)*, 266-271.

Vivar, C. G. (2006). Putting conflict management into practice: a nursing case study. *Journal of*

*Nursing* Management, 14, 201-206.

Wagner, J., Liston, B., & Miller, J. (2011). Developing interprofessional communication skills.

*Teaching and lLearning in Nursing*, *6*, 97-101. http://dx.doi.org/10:1016/j.teln.2010.003

Waite, R., & McKinney, N. S. (2014, October 1). Enhancing conflict competency. *Association of*

*Black Nursing Faculty*, 123-129.

**Appendix A**

**Rating System for the Hierarchy of Evidence:** Quantitative Questions

**Level I:** Evidence from a systematic review of all relevant randomized controlled trials (RCT's), or evidence-based clinical practice guidelines based on systematic reviews of RCT's

**Level II:** Evidence obtained from at least one well-designed Randomized Controlled Trial (RCT)

**Level III:** Evidence obtained from well-designed controlled trials without randomization, quasi-experimental

**Level IV:** Evidence from well-designed case-control and cohort studies

**Level V:** Evidence from systematic reviews of descriptive and qualitative studies

**Level VI:** Evidence from a single descriptive or qualitative study

**Level VII:** Evidence from the opinion of authorities and/or reports of expert committees

(Melnyk & Overholt, 2011, p. 10)

**Appendix B**

## Significance (cont)

- Sentinel alert (2008)
  - Unresolved conflict and poor interprofessional communication
- Essential VI AACN (2008)
  - Communication and collaboration among professionals
- World health Organization (2010)
  - Framework for action and interprofessional education & collaborative practice

## Theoretical Framework

- **Social Cognitive Theory**
  - Banduras Self-efficacy: Toward a Unifying Theory of Behavioral Change (1977)
  - Self-efficacy refers to a person's belief in their capacity to implement behaviors necessary to produce specific performance accomplishments.
  - Behavioral change = personal sense of control
- **Bandura - form their self-efficacy beliefs through**
  - Verbal persuasion
  - Performance
  - Vicarious experiences
  - Physiological state
  
  (Pender Murdaugh, & Parsons, 2006; Bandura, 1994; Bandura, 1997)

## Theoretical Framework (cont.)

- Strong base of self-efficacy improves education and fosters commitment to behavior.
- Motivation can be positively impacted by one's self-beliefs of efficacy
- People must feel actions guide towards desired outcomes or loose motivation.

  (Pender Murdaugh, & Parsons, 2006; Bandura, 1994; Bandura, 1997)

## Evidence Search Methods

- CINAHL, EBSCO, Pub Med, and Medline
  - "Nursing students"
  - "Conflict resolution"
  - "Conflict management"
  - "Education"
  - "Teaching methods"
  - "Interprofessional relations"
- Limitations
  - English text only,
  - 10 years.

## Levels of Evidence
## Melnyk and Fineout-Overholt

Melnyk and Fineout-Overholt

| Level of Evidence | Research Design | No. of each |
|---|---|---|
| II | Randomized Control Study | 1 |
| | Systematic Literature Review | 1 |
| III | Descriptive mixed method pre-post design study | 1 |
| | Mixed methods pre-post research design study | 1 |
| | Pre-post design study | 1 |
| | Mixed methods exploratory pre post design study | 1 |
| IV | Descriptive cross-sectional research study | 1 |
| V | Non experimental pre-post survey design | 1 |
| | Systematic literature review | 1 |
| VI | Development and Implementation of educational program | 1 |
| | Pre post design | 2 |
| VII | Expert opinion | 3 |

## Thematic Analysis

- **Similar curriculum**
  - Awareness of problems conflict and poor interprofessional communication causes
  - Learning person style
  - Gaining knowledge on different styles of conflict resolution
  - Using small groups and simulations to allow practice of skills

# Appendix C

| Authors/ Publication Year | Purpose | Design | Sample | Data collection and measurement | Findings | Strengths | Limitations | Level of Evidence (Melnyk) |
|---|---|---|---|---|---|---|---|---|
| Altmiller, G. (2011, September/October). Teaching clinical nurses specialist students to resolve conflict. Clinical Nurse Specialists, 260-262. | Presented strategies to aid in conflict resolution for nursing students, including cognitive rehearsal, and reframing through participation in simulations | Expert Opinion | Nursing students

N = no determination | Implemented 3 strategies in teaching conflict resolution. 1. Cognitive rehearsal to address inappropriate behavior at the time it occurs in a no stressful simulated environment 2. Didactic teaching of de-escalation techniques. 3. Journaling and discussion about conflict situations with peers. | Putting strategies into action, allows group member to observe and participate in changes in communication methods as they relate to conflict resolution.. | Teaching methods align with other reliable evidence presented in this literature review.

Methods of teaching including didactic lesson, simulation, and small group discussion are concurrent with findings in this literature review | Not a study and no evaluation was presented regarding the effect that these strategies have on student nurses. | VII |
| Cameron, A., Rennie, S., DiProspero, L., Langlois, S., Wagner, S., Potvin, M. ... Reeves, S. (2009, Winter). An introduction to teamwork. *Journal of Allied Health, 38(4),* 220-226. | To determine if there were changes in students' perceptions and attitudes related to Interprofessional communication following participation in learning session. | Mixed methods Pre/post research design study | N=1,197 Undergraduate health science student. | Each student completed a pre and post intervention study using Interprofessional Attitudes Questionnaires and the Interdisciplinary Education Perception Scale. Both these instruments are pre validated and widely used interprofessional instruments. Students attended a 2.5 hour interprofessional education class that integrated simulations and debrief sessions to communicate how different approached to conflict can affect the situation. . | Quantitative data demonstrated that out of 14 total items in the IAQ, all but two displayed positive change in conflict resolution skills from pre to post intervention ($p<0.05$). Qualitative data demonstrated diverse opinions with positive feedback and suggestions for improvement on the process. | Researchers found a significant positive change, and shifts in the students' attitudes regarding their ability to resolve situations that involve conflict

These shifts are an important component in generating a base for behavioral change needed to provide collaborative practice. . | Study limitations include the omission of demographics of the study. Logistical factors with a large-scale IPE event may have overwhelmed some of the participants and although students represented numerous health professions, they were all from the same institution and results may not be duplicated at other institutions. | III |

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|---|---|---|---|---|---|---|---|---|
| Curran, V. R., Heath, O., Kearney, A., & Button, P. (2010, May). Evaluation of an interprofessional collaboration workshop for post-graduate residents, nursing and allied health professionals. *Journal of Interprofessional Care*, *24(3)*, 315-318. | To determine if one-day interprofessional collaboration workshop for post-licensure health care providers and pre-licensure trainees would enhance attitudes towards interprofessional teamwork and was a satisfactory learning tool. | Pre-post study design | N=134 46 allied health professionals, 34 post graduate residents, 33 nursing staff, and 20 other professionals. | Participants completed a pre and post survey using two scales, which were validated in the literature and measured self-reported teamwork abilities and attitudes towards teamwork. Attitudes towards Interprofessional Healthcare Teams, with 14 five-point Likert scale items, and The Perceptions of Effective Interprofessional Teams scale a 17 five-point Likert Scale items. Participates were then contacted via phone 6-8 week following the workshop with a satisfaction survey. Workshop learning activities included case study exercises, simulations, videos, large and small group discussions, and self-reflective assignments. | Results obtained demonstrated that participants communicated a high level of satisfaction with 88.5% agreeing or strongly agreeing that the workshop had been meaningful to their career, and 86.9% would recommend the workshop to others. | The study has shown that this interprofessional education workshop are successful in enhancing residents attitudes regarding teamwork and that it was an acceptable learning experience for allied health and nursing staff.  Methods of teaching including simulation, and small group discussion are concurrent with findings in this literature review. | Limitations of this study include the omission of the demographics for the participants, so the number of years of employment may have played a role in their attitudes of interprofessional communication and education regarding this topic**.** This study was not very descriptive in the specific steps they used in the implementation of the learning activities in this workshop. | III |
| Dacey, M., Murphy, J. I., Anderson, D. C., & McCloskey, W. W. (2010). An interprofessional service-learning course: Uniting students across educational levels and promoting patient centered care. Journal of Nursing Education, 49, 696-699. | To determine if a pilot interprofessional education (IPE) course would affect students' attitudes towards interprofessional learning. | Pre/post design Study | N=10 Two health psychology students, two baccalaureate-nursing students, three premedical students and three pharmacy students. A control group of the same make up that did not take the IPE course. | Students attended weekly sessions that were integrated into existing semester curriculum. Topics taught included developing awareness of different and personal styles of interprofessional communication and team building skills.  Teaching methods included role –playing, didactic lectures, journaling, and group discussions. Pre and post assessments were completed using the Readiness for Interprofessional Learning Scale. | Compared to the control group, students who attended the course had positive attitudes towards team collaboration both pre and post assessment. Students who participated in the class felt less isolated and more like an intricate part of the group after implementing the strategies suggested in the class.  Qualitative findings included themes of increased confidence, communication, and respect among professions. | The pilot study purpose was vague and as such the number of subjects (n=10) was low, including the small number of nursing students (n= 2). | For the purpose of this project, this study identified many methods of teaching including simulation, and small group discussion, that are concurrent with findings in this literature review The assessment of the course utilized a pretest-posttest format and control group. | III |

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|---|---|---|---|---|---|---|---|---|
| Dillion, P. M., Noble, K. A., & Kaplan, L. (2009, March/April). Simulation as a means to foster collaborative interdisciplinary education. Nursing education research, 30(2), 87-91. | To measure medical and nursing students perception of interprofessional communication pre and post participation in a high-fidelity simulation. | Pre/posttest study design | N=92 68 nursing students and 14 medical students. The students were fourth year baccalaureate nursing students and third-year medical students in a large urban university. | Students participated in an interdisciplinary, collaborative mock code learning exercise using a high-fidelity simulator that included the ability to watch other participants. A group discussion ensued post simulations. The Jefferson Scale of Attitudes Toward Physician-Nurse Collaboration a 15-item, four point Likert-type scale with reported reliability ranging from 0.70 to 0.86, along with open-ended questions developed by the authors, were used to measure medical and nursing students' perception of interprofessional communication. | Common themes of increased understanding, and appreciation in teamwork and interprofessional collaboration emerged from this study. A statistically significant increase in confidence levels was seen in all skills (p, 0.05 to p= 0.01). Prior to the exercise some nurses saw their role as subservient to the doctors | This study supported the use of simulation as an educational strategy for interprofessional education parallel with the findings of this literature review. The researchers used validated evaluation instruments and open-ended questions to collect data. Both qualitative and quantitative findings supported using simulation to support interdisciplinary collaborative education. | Inadequate completion of the study, as only 40 students (nursing students n=31; medical students n=9) completed the posttest, and the sample of nursing students was 78% female. The author states that it is possible that the Jefferson Scale captured the responses to the role of collaboration how nursing students though it should be, while open-ended questions reflected the actual experience. Possibly biased with socially acceptable responses. | III |
| Lin, E. C., Chen, S., Chao, S., & Chen, Y. (2013). Using standardized patient with immediate feedback and group discussions to teach interpersonal and communication skills to advanced practice nursing students. Nurse Education Today, 33, 677-683. | To determine if a two hour class consisting of theoretical knowledge and clinical skills of interprofessional relationships, would improve their personal manner, counseling and delivering information, and interviewing skills | Randomized control study | N=26 First year APN female nurse in Taiwan. | Participants received a two-hour instructional class consisting of theoretical knowledge and clinical skills of interpersonal relationships. It included role-playing and interviewing. The group was divided into two sections. Group 1, -attended an intervention where they practiced the scenario, had group discussions and viewed their interactions on video. Group 2, - was deemed the control group, and received no intervention. Interviews, interpersonal skills assessment tool and student learning satisfaction tools were completed before and after the class | The scores for counseling and delivering information were significantly improved for group 1. All participants showing significant improvements on interprofessional and communication skills with group 1 being slightly higher than the control group (8.50 vs 8.29). Written qualitative feedback demonstrated that all participants also showed an increase in their learning satisfaction. | The study was very descriptive and specific as to the steps it took to educate the participants. Data was collected by several reliable and valid tools in this study including Interpersonal Assessment tool, and Student Learning satisfaction tool. The data was divided into several dimensions including personal manner, counseling and delivering information, and interviewing. This data was presented in several well laid out tables for reviewing. | A small sample size of 26 participants. The authors also stated that there was contamination between the two groups and information was easily exchanged which could have altered the outcomes. | III |

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|---|---|---|---|---|---|---|---|---|
| Martin, P., Newby, M., Moran, M., Browne, M., & Kumar, S. (2016, July). Interprofessional scenario-based learning for new graduates in a regional setting: A piolet study. Internet Journal of Allied Health Sciences and Practice, 14(3), 1-10. | This study reports on a novel interprofessional new graduate learning program that was developed and implemented to address the las of structured post-qualification interprofessional learning opportunities | Mixed methods exploratory pre-post design | N=21 health professionals from nine different health professions with less than two years' experience. | Program consisted of six nine 90-minute sessions. Learning activities included conflict played out in a simulation. Education on communication techniques, roles of other professions, and reflective debrief sessions. Interprofessional Social and Valuing scale was administered pre and post program intervention. . | Quantitative and qualitative results demonstrated increases in self-perception of abilities, comfort in interprofessional interactions, and appreciation and understanding of interprofessional practice with the self-reported measures $x2(1)$ = 42.4, p, .001. Reflective summaries demonstrated positive effects regarding the teaching methods of this study | The author demonstrated positive effects regarding the teaching methods of this study that aligned with other methods mentioned in this literature review. | Lacking demographics data of the participants, other than that 81% of participants were women. No graphs were given explaining the other demographics. The retention of the study demonstrated a shortfall, as only 67% of participants attended three or more sessions | III |
| Reeves, S., Perrier, L., Goldman, J., Freeth, D., & Zwarenstein, M. (2013). Interprofessional education: effects on professional practice and healthcare outcomes (update) (Review). Cochrane Database of Systematic Reviews, 1-47. Retrieved from http://s3.amazonaws.com/academia.edu.documents/37600384/IPE_Cochrane_Review_update_2013.pdf?AWSAccessKeyId=AKIAJ56TQJRTWSMTNPEA&Expires=1481755631&Signature=ofc%2BYKdoIxeQPbYOD24teaUDmn4%3D&response-content-disposition=inline%3B%20filename%3DReeves_S_Perrier_L_Goldman_J_Freeth_D_Zw.pdf | Presented evidence regarding the effectiveness of interprofessional education interventions compared to no education interventions. Review identified several methods appropriate for teaching interprofessional communication and conflict resolution. | Systematic literature review | 15 total studies were examined. Participants included a variety of heal care professionals | Two reviewers autonomously assessed the eligibility of 15 potentially relevant studies, Data was extracted and study quality was assessed. Six studies were chosen for inclusion. | Four of these studies indicated that IPE produced positive outcomes. Two of the six studies reported mixed outcomes (positive and neutral) Positive outcomes were related to teaching methods identified by the literature review. . | These studies used RCT's, controlled before and after studies (CBA) and interrupted time series. , a summary of findings reported effects of IPE interventions for each study. Using methods previously referred to in the literature review it identified a series of positive outcomes achieved. | Small number of studies, the diverseness of interventions, and the methodological limitations makes it difficult to draw general implications about the key elements of IPE and its effectiveness from these studies. | II |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Sargeant, J., MacLeod, T., & Murray, A. (2011). An interprofessional approach to teaching communication skills. Journal of Continuing Education in the Health Professions, 31(4), 265-267. | Describes the development, and evaluation of a communication skills training program focused on interprofessional communication and conflict resolution. | Mixed method evaluation design | N= 518 variety of participants representing 20 health professions. Nurses made up over 50% of the participants. | Participants attended a 2 hours workshop that focused on incorporating strategies for enhanced communication skills in a variety of clinical situations. Workshops included providing evidence for effective communication, and role-playing to observe and practice skills with trained actors. Debriefing and discussion sessions were also incorporated. Questionnaires were filled out pre and post workshop to determine self-reported communication skills, and 3-month follow-up in changes of practice were addressed. | The authors have shown that communication skills showed significant improvement after all workshops as indicated by pre/post-paired t-tests of self-reported communication skills. (p ≤ 0.05) and 92% (353/378) indicating one or more changes would be implemented into their communications practices. | The large sample size was the main strength. The authors found that a 2-hour class involving role playing, and discussion sessions can positivity impact the feelings and actions of medical workers as it applies to interprofessional communication and conflict resolution | The purpose of the study in this article was vague which contributed to the overall lack of clarity related to utility of the findings. Furthermore, the findings of this study were not clearly presented in the scant discussion section, which only stated that communication skills and behavior could be improved and instruction was valued. No demographics of the participants or diagrams with the data were provided for further analysis of study findings. In addition, the type and validity of the survey tool was not addressed. | III |

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|---|---|---|---|---|---|---|---|---|
| Seren, S., & Ustun, B. (2008). Conflict resolution skills of nursing students in problem based compared to conventional curricula. Nurse Education Today, 28, 393-400. | To compare conflict resolution skills of nursing students enrolled in problem based learning verses conventional curriculum. | Descriptive cross sectional study | N=366 225 students from a conventional method nursing school and 141 student from problem based curriculum nursing school. Mean age 21.7 (range 18-27) 2 students were males. | Data was collected from second, third and fourth year students in the schools. Data collection tools included a 55-item Conflict Resolution Skills Scale. This scale was developed in Turkey and was reviewed for reliability and validity. Data analysis was performed using the Statistical Package for Social Sciences version 10.1 and higher scored indicated better conflict resolution skills. | Students with a problem based learning base (mean = 184.74 ± 14.27) had statistically significant higher scores compared to those taught by the conventional method (mean = 176.65 ± 16.04) indicating enhanced conflict resolution skills. | The authors demonstrated that problem based learning where curriculum covers self-awareness, social skills, communication, and integrates simulations and peer interaction, produce higher conflict resolution skills in students then in students who receive only didactic teaching on the subject. | Only two nursing programs were studied with a possibility of social desirability bias, associated with self-report questionnaires. The cross-sectional nature of the study prevented data collection over time. The sample was almost exclusively female, which further limited the generalizability of the findings. | IV |
| Stone, R., Cooper, S., & Cant, R. (2013). The value of peer learning in undergraduate nursing education: A systematic review. International Scholarly Research Network Nursing, 2013(Article ID 930901), 1-10. | Examined various methods of peer learning and their effectiveness in undergraduate nursing education to determine whether undergraduate nursing students benefit from peer learning, on | Systematic review | Undergraduate nursing students from first to final year. The majority were females. Participant numbers and study duration varied. Example 15 students over a three-year period and 365 over a 2-year period. | A search was conducted for peer-reviewed articles in English published between 2000-2010. The following terms were used undergraduate nursing students, peer learning, classroom lecture learning. 1813 studies were screened and 18 were selected for review. | This research showed that undergraduates do benefit from peer learning as evidenced in 16 of the 18 studies. Improvement was noted in both objective effect and subjective assessments (self-rated increase in confidence). Learning from peers, including in simulation experiences, was shown to be acceptable to students, decrease anxiety, and that learning occurred more effectively when there was socialization. Students who taught other students developed a higher self-confidence in themselves and were able to problem solve more independently with their patients. | The author has shown through specific analyzation of each article selected, exactly what it was measuring and only chose experimental studies with the highest level of evidence. The research concentrated on peer learning as an effective method of delivering information in undergraduate nursing education, which was also determined to be and appropriate teaching method by other studies in this literature review | Inclusion criteria of only studies published in English and the mix of study designs, location-or topic specific, and indirect data collection methods limited direct comparison between studies. | V |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Sullivan, D. T., & Godfrey, N. S. (2012). Preparing nursing students to be effective health team partners through interprofessional education. . Creative Nursing, 18(2), 57-63. | Summary of recent significant accomplishme nts that helped to promote healthcare through collaboration and teamwork. This article also addressed interventions that can be utilized by nursing schools to help nursing students develop skills, attitudes and knowledge related to Interprofession al Communicatio n (IPC) | Expert opinion | Schools of nursing | Author's research shows there are two national efforts that have created a consensus on what competencies health profession students need to develop to prepare them for professional practice. In 2009 six national health professions education associations formed the Interprofessional Education Collaborative (IPEC). The second resulted from an invitational meeting sponsored by IPEC, Health Resource and Service Administration and others in 2001. Conference proceedings titled Team-Based Competencies: Building a Shared Foundation for Education and Clinical, were developed | The author's state that IPC offers tremendous value and implementation of this topic should occur in every level of the nursing programs around the country. To promote and sustain effective IPE four elements must be considered: faculty, curricula, structure, and students.<br><br>It was also noted that TeamSTEPPS is an excellent evidenced based reference for educators to use to teach IPC. | Authors discussed important aspects of the four elements listed in findings. Faculty must work on the development systematically and be ready for the increased initial workload with development. Curricula should include classroom, interactive exercises, small group discussion, and reflection. Students should be given multiple opportunities to learn and practice IPE.<br><br>Authors were professors in nursing with their PhD's. | The article did not include any studies or present any data as to how these implementations will affect students post-graduation. | VII |
| Thornby, D. (2006). Beginning the journey to skilled communication. AACN Advanced Critical Care, 17(3), 266-271. | Author stated that interprofessional communication is a skill that must be developed and the first step is to determine your current effectiveness and style as a communicator. | Expert Opinio n | Nursing | Author stated that in 2005 the American Association of Critical Care Nurses (AACN) published Standards for Establishing and Sustaining Healthy Work Environments: A Journey to Excellence. This document articulates 6 standards. The first standard, communication, states, nurses must be as proficient in communication skills as they are in clinical skills. | Author stated that development of communication skills start with self-awareness of personal abilities and styles. The authors suggest using a tool to determine this such as Style Under Stress Survey (www.vitalsmarts. com). | The ideas for integrating Interprofessional education into nursing education are concurrent with the ideas from other literature in this review. Understanding your style by using a tool and developing this skill over time is an essential part of nursing education. The author referred to many credible associations and their ideas related to interprofessional education. | This is not a study and no data was collected, nor was there a specific base noted except for nursing in general. | VII |

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|---|---|---|---|---|---|---|---|---|
| Wagner, J., Liston, B., & Miller, J. (2011). Developing interprofessional communication skills. Teaching and lLearning in Nursing, 6, 97-101. http://dx.doi.org/10:1 016/j.teln.2010.003 | To determine if an educational program is a valuable tool in promoting interprofessional education | Development and implementation of educational program | N=20 Ten medical students and ten nursing students | Participates were divided into 10 teams consisting of a 4th year medical student, senior nursing and a family member portrayed by an actor. An ED scenario was presented where the patient deteriorates, and conflicting family dynamics are integrated into the scene. The goal is to work together within a conflict setting and develop a care plan for the patient. A 5-point Likert scale used to determine value of the learning exercise | The authors determined that this was a valuable exercise and that students stated they learned from watching the actions of others in a conflict situation, and would recommend this program to others. | Using simulation to teach interprofessional education such as simulations aligns with other methods suggested for educational methods found in this literature review. | There was no determination of prior experience or style in conflict settings and this was not a study. | VI |
| Waite, R., & McKinney, N. S. (2014, October 1). Enhancing conflict competency. Association of Black Nursing Faculty, 123-129. | To assess changes in conflict style among under-graduate pre-licensure nursing students engaged in a leadership program. | Non-experimental pre-post survey | N=14 Non-random sample of female undergraduate pre-licensure nursing students who attended an academic institution in an urban setting of the northern USA and have applied to be in a leadership program. | All participants filled out a Thomas-Kilmann Conflict Mode Instrument (TKI) to determine their conflict handling behaviors both preprogram and the last week of classes. The intervention was weekly classes over a 17-week period. Teaching strategies included didactic teaching, reflective journaling, group assessments, simulations, guest speakers and peer evaluation. | Paired sample correlations from the TKI indicated statistical significance at <0.5. Results indicated that the conflict style shifted from compromising to competing for the posttest. This information indicated that changes in conflict resolution styles can be realized through education and is useful to include content on the importance of not overusing or underusing specific styles. Furthermore, the research conducted that allowing students to recognize their preferred conflict styles and rallying development of other styles based on specific situations, helped to support their goal of becoming effective leaders (Waite & MicncKinney, 2014). | This study included the results of specific changes in conflict style were presented in easy to understand graphs, which helped to determine the utility of the evidence for the purpose of this project. Limitations of this study include the small number of participants (N=14) for which no demographic were given about the subjects. | Limitations of this study include the small number of participants (N=14) for which no demographic were given about the subjects. All participants were also interested in enrolling in a leadership fellowship, and thus may have had a predisposition to specific conflict resolution skills. No control group was present to compare the research to and the validity of the TKI tool was not addressed in this study although it has been reported valid in a previous study (Pines, cited in Waite and McKinney (2014)). | V |