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Effect of conflict resolution educational program on resilience at work among internship nursing students

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Abstract

Background: Conflict resolution skills are essential for enhancing resilience at work, particularly among internship nursing students who often face high-pressure situations. Effective conflict resolution enables these students to adapt to changing circumstances and collaborate more efficiently.

Aim of the Study: The present study aims to assess Effect of Conflict Resolution educational program on Resilience at work among Internship Nursing Students.

Research Design: Quasi-experimental research design.

Sample: The study subject involved 60 internship nursing students. Tools: Tool (I):Self-Administered Questionnaire that involved two parts 1st part: Socio-demographic data, 2nd part: conflict resolution knowledge questionnaire. Tool II: The Rahim Organizational Conflict Inventory-II (ROCI II; Rahim, 1983) and Tool (III): Resilience at Work Scale (RAW-S).

Results: (86.7%) of internship nursing students have low score about conflict resolution knowledge in pre-test. While in immediate post-test and follow-up test of educational program implementation, internship nursing students have high level of knowledge about conflict resolution by (96.7% and 90% respectively) with highly statistically significant variation. Regarding immediate posttest as well as follow up tests, internship students have high level of resilience at work, the highest score for (staying healthy, finding your calling and building social connection).

Conclusions: The implementation of a conflict resolution educational program has a significant impact on enhancing resilience at work among internship nursing students.

Recommendations: Integrate conflict resolution into the nursing curriculum; employ interactive teaching methods such as role-plays, group discussions, and simulations to engage nursing students actively to apply their conflict resolution in realistic scenarios, enhancing their resilience, and problem-solving abilities. Incorporate the educational program about conflict resolution into orientation process for nursing students.

Keywords: Conflict resolution, resilience at work, internship nursing students.

Introduction

A natural part of human interaction is conflict, particularly in high-stress environments like healthcare. It often arises from miscommunication, differing priorities, or clashing personalities, leading to tension among team members. If left unaddressed, conflicts can escalate, resulting in a toxic work environment that negatively impacts both staff morale and patient care. In nursing, conflicts may manifest in various forms, such as disagreements over workload distribution, treatment plans, or ethical dilemmas. Understanding the nature of these conflicts is crucial, as it allows all healthcare team members and especially new generations, fresh graduates and internship nursing students to identify underlying issues and work towards resolution rather than allowing resentment to fester Huang *et al.*, (2023) [24].

The younger generation of healthcare professionals, known as internship nursing students, are still in training and work under the supervision of a registered nurse while delivering direct patient care and carrying out a variety of clinical duties (Grande *et al.*, 2021) [20]. Additionally, nursing interns are usually nursing students seeking practical experience in a hospital or medical facility in order to close the knowledge gap between theory and practice during their internship. In practice, they learn how to have a rare opportunity to obtain practical clinical experience in a real-world healthcare setting, while in theory they learn how to deal with colleagues, supervisors, varied patients, and their families (Roush *et al.*, 2021) [36].

Intern nursing students are exposed to a range of specialties throughout their internship year, including as pediatrics, medical-surgical, oncology, critical care, and labor and

delivery. They acquire the clinical skills required to succeed as nurses and learn how to truly work with patients of all ages and backgrounds. Moreover, to deal with various patients from different categories in different situations, internship nursing students need to learn how to gain conflict resolution skills to become able to work flexibly in different health care settings (Wei et al, 2021) [42].

Choosing the best tactics for the right circumstances is part of the conflict resolution skill, which is one of the most challenging yet crucial duties of any manager (Jordan & Troth, 2021) [26]. When two or more values, objectives, or beliefs are inherently at odds with one another and no consensus has been reached, a conflict arises. When two or more persons disagree with the fundamental tenets of the organization or act hostilely against one another, a conflict may result. Furthermore, to large extent resilience at work mostly affected by conflict resolution (Böhm et al., 2020) [10].

In nursing, effective conflict resolution is important for enhancing a collaborative as well as productive work circumstance. Strategies for resolving conflicts include accommodation, collaboration, compromise, avoidance, and competition, each suited to different situations and personalities involved. (Choi & Ahn, 2021) [11]. Moreover, conflict resolution styles refer to the various approaches individuals use to address disagreements and disputes. The primary styles include Avoiding, where one sidesteps the conflict entirely; Accommodating, which involves prioritizing the needs of others over one's own; Competing, characterized by a win-lose mentality where one party seeks to dominate the other; Compromising, where both parties make concessions to reach a mutually acceptable solution; and Collaborating, which focuses on finding a win-win solution by addressing the needs and concerns of all parties involved. Each style has its advantages and disadvantages, and the effectiveness of a particular style often depends on the context of the conflict and the relationship between the parties involved Gunasingha et al., (2023) [21]. Conflict

Effective conflict resolution strategies, such as open dialogue and active listening, help to clarify misunderstandings and foster a culture of respect and cooperation among staff members. Moreover, addressing conflicts promptly can prevent escalation, ensuring that the focus remains on providing high-quality patient care. Ultimately, mastering conflict resolution not only benefits individual nurses but also contributes to a more cohesive and efficient healthcare team and also, it create a resilient work environment (Ahmadi et al., 2023) [3]. So, resilience reflects an individual's ability to well adapt considering the fact that stressful circumstances as well as to thrive despite the difficulties (Hofgaard et al., 2021) [23]. Resilience mostly affected by culture differences and presence of conflict. Resilience is also the ability to successfully negotiate, adjust, and manage major stressors or trauma (Walpita & Arambepola, 2020) [39].

Resilience refers to a person's ability to "bounce back" or recover from stress by adapting to difficult conditions, avoiding illness in the face of severe adversity, and doing better than usual in the face of stressful events or adversities (Berie et al., 2021) [8]. Resilience's dynamic nature has increased its potential application in the workplace to stop adverse effects on the working environment (Walpita &

Arambepola, 2020) [39]. Furthermore, according to Wie et al. (2019) [41], nursing resilience is a talent that can be acquired and used to thrive in the face of workplace challenges.

Significance of the Study
The significance of a study conducted on conflict resolution and resilience at work among internship nursing students lies in its potential to enhance both individual and organizational outcomes within the healthcare setting. Nursing students often face high-stress environments during their internships, where conflicts can arise due to workload pressures, communication breakdowns, and differing priorities among team members. By focusing on conflict resolution skills, the study aims to equip nursing students with the tools necessary to navigate these challenges effectively. This preparation is crucial, as it not only fosters a more harmonious work environment but also contributes to better patient care outcomes by ensuring that nurses can collaborate effectively with their colleagues and address issues proactively (Choi& Ahn, 2021) [11].

Moreover, the study highlights the importance of psychological resilience in managing workplace conflicts. Psychological resilience means as the ability to cope to changing circumstances and respond to challenges with resilience (Lemana et al., 2024) [29]. For nursing students, developing this resilience can significantly impact their ability to adapt with the needs of their internships. By learning to be more adaptable, students can reduce stress and anxiety associated with conflicts, leading to improved mental health and job satisfaction. This adaptability is particularly vital in the nursing profession, where the ability to respond to dynamic situations is important for providing superior patient care (Ahmadi et al., 2023) [3].

Abdelhamid and El-Gharabawy (2023) [1] conduct a study about "The Impact of Conflict Resolution Skills on Resilience among Nursing Interns, the study explores how conflict resolution skills influence resilience among nursing interns in Egypt, highlighting the importance of these skills in managing workplace stress and enhancing learning experiences. Lin et al., (2023) [31] examined the role of resilience among nursing interns during the COVID-19 pandemic. It highlighted how resilience positively influenced learning engagement and professional identity, which are critical for managing workplace challenges, including conflicts.

Finally, the findings of this study can inform nursing education programs by emphasizing the need for integrating conflict resolution and resilience training into the curriculum. By incorporating these essential skills into their training, nursing programs can better prepare students for the realities of their future roles in healthcare. This proactive approach not only enhances the students' readiness to handle conflicts but also provides to the overall effectiveness of healthcare teams. Ultimately, fostering these skills among nursing students can lead to a more competent and resilient nursing workforce, which is essential for addressing the complex challenges faced in modern healthcare settings.

Aim of the Study
The present study aims to determine Effect of Applying Educational Program about Conflict Resolution on Resilience at work among Internship nursing students

Research Hypotheses
- Conflict Resolution knowledge will be higher among internship nursing students after program implementation.
- Conflict Resolution styles will be changed among internship nursing students after program implementation.
- Resilience level will be higher among internship nursing students after program implementation.
- There will be a significant correlation between the conflict resolution styles and resilience at work among internship nursing students.

Subjects and methods
Research Design
- Quasi-experimental research design was used to complete the study aim.

Setting
The study was applied at two of Minia University Hospitals; these hospitals are named as:
- Renal and Urology University Hospital
- Pediatric and Gynecology University Hospital.

Sample
The study subject consisted of 60 Internship Nursing Student from Faculty of Nursing, Minia University, by using Raso soft program and calculation.

$$X = Z(^c/_{100})^2 r(100-r)$$

$$N = {}^{Nx}/_{((N-1)E^2 + x)}$$

$$E = \text{Sqrt}[^{(N-n)x}/_{n(N-1)}]$$

and they was selected randomly from selected areas.

Tools of Data Collection
Data was gathered through three tools as following

Tool (I): Self-Administered Questionnaire: this tool composed of two parts as:

1st part: Socio-demographic data
it was used to gather data about Internship nursing students encompass items as (gender, age, and residence, previous work experience both before and during internship year, cumulative grade during college years and clinical area)

2nd part: conflict resolution knowledge questionnaire
It was designed by the researcher depend on the literatures as Erickson and Noonan (2018); Rasooli et.al. (2019), Davidaviciene and Al Majzoub (2022) to assess Internship nursing students' knowledge regarding conflict resolution. The questions were prepared in forms of true and false and multiple choices questions. It involved 16 questions regard to the definition of conflict, conflict resolution, conflict resolution styles, level of conflict …etc. The questions scored as one for the right answer and zero for the wrong answer. Also, a scoring system was classified as:

Low conflict resolution knowledge	0- 9
Moderate conflict resolution knowledge	10- 12
High conflict resolution knowledge	13- 16

Tool II: The Rahim Organizational Conflict Inventory-II (ROCI II; Rahim, 1983)
It was developed by Rahim (1983) [35] and adopted by researcher to measure styles of handling interpersonal conflict. It contained 28 items. The responses were measured with five- point Likert scale as (zero for Never, one for scarcely, two for sometimes, three for often, and four for always). The order of items was randomized clearly reflect the five dimensions of conflict styles (Collaborating: seven items), (Accommodating: six items), (Competing: five items), (Avoiding: six items) and (Compromising: four items), and regarding dimensions scoring system it was distributed as follows:

Table 1: Conflict Resolution questionnaire dimensions:

Conflict Resolution Style	Least Preferred	Backup	Dominant	Very Dominant
Collaborating (7)	7-12	13-17	18-22	23-28
Accommodating (6)	6-10	11-15	16-19	20-24
Compromising (4)	4-7	7-10	11-13	14-16
Competing (5)	5-8	9-12	13-16	17-20
Avoiding (6)	6-10	11-15	16-19	20-24

Tool (III): Resilience at Work Scale
It was developed by Winwood *et al.*, (2013) [43] and was adopted by researcher to evaluate resilience at work for internship nursing students. It consisted of 17-items divided into six dimensions, namely; Living authentically (three items), Finding one's calling (three items), Maintaining perspective (three items), Managing stress (four items), Staying healthy (two items), and Building networks (two items). The responses were measured with five-point Likert scale ranged as (zero for Never, one for scarcely, two for sometimes, three for often, and four for always).So the **Scoring** ranged from (0) to (68) as follows:

Table 2: Resilience at work questionnaire dimensions

Subscales	No of items	Low 22	Moderate 23- 45	High 46-68
Living authentically	3	0-3	4-7	8-12
Finding your calling	3	0-3	4-7	8-12
Maintaining perspective	3	0-3	4-7	8-12
Managing Stress	4	0-5	6-11	12-16
Building social connection	2	0-2	3-5	6-8
Staying Healthy	2	0-2	3-5	6-8
Total resilience at work	17	0-22	23-45	46-68

Validity and reliability
A panel of five nursing administration specialists evaluated the instruments' face validity. A review of the instruments' topic coverage, clarity, language, length, format, and general appearance was requested of each expert panel. The jury panel also made the required adjustment. In order to determine reliability, the Cronbach's alpha test was used to assess the tools' internal consistency. The results showed that the alpha was:

Tools	Cronbach's alpha
Conflict knowledge Tool	0.889
Collaborating	0.790
Accommodating	0.915
Competing	0.832
Avoiding	0.811
Compromising	0.892
Total conflict	0.898
Total resilience at work	0.883

Pilot Study
A pilot study of the questionnaires was carried out on ten percent of the study subjects, which included six nursing internship students. They were chosen at random from each department to verify the tools' applicability and clarity, identify any roadblocks and issues during data collection, and gauge how long it would take to complete the questionnaires. The pilot study was incorporated into the main study since, based on the results, no changes were made to the instruments and they were used in their final configuration.

Data collection procedure
Six phases comprised the study's execution: preparation, assessment, planning, implementation, evaluation, and follow-up.

Phase 1: Preparation Phase
- In this phase: Written Approval was taken from Ethical Committee in the Faculty of Nursing, Minia University
- Approval to conduct the study was obtained from Dean of the Faculty of Nursing, Minia University.
- To become familiar with the research problem and to carry out the study, a review of the relevant literature encompassing diverse facets of the problem and study variables was conducted by utilizing various books, journals, and websites.
- Tool (I) which was about Conflict Resolution Knowledge, was designed by researcher depend on related literatures.
- Tool (II, III) which were about The Rahim Organizational Conflict Inventory-II, and Resilience at Work Scale were adopted.
- The translation to Arabic language for all tools was done.
- Testing the validity of three tools from the jury; and important modification were done. Tools of the study were tested for reliability and its internal consistency.
- This phase lasted from the starting of January (2023) to the End of January (2023).

Phase 2: Assessment Phase
- The researchers establish rapport with internship nursing students at (Minia university Hospitals).
- Oral permissions were obtained from the Internship Nursing Students at (Minia university Hospitals) after explaining the importance and purpose of the study.
- Every subject who consented to participate was given the researcher's word that their involvement would be voluntary and secret.
- Pre-test was collected from participants using all three study tools which were (Conflict Resolution Knowledge, Rahim Conflict Resolution Scale and Resilience at work Scale) and the researcher collected data in one month from the beginning to the end of febreuary2023, using all study tools which were distributed to the internship nursing students to assess their awareness before implementing the program. Depend on the finding of pre-test, the research subjects learning needs was identified.

Phase 3: Planning phase
This phase was included the following
- Developing the program booklet for internship nursing students about conflict resolution based on the extensive reviewing of the literatures was lasted for one month from the beginning to the end of March 2023.
- The program booklet included providing general introduction about conflict resolution and its history, definitions, conflict concept, sources of conflict, conflict resolution styles, types of conflict and management tips to deal with conflict etc.
- The timetable of the program was developed for internship nursing students based on their work time schedules.
- The study's learning environment was set up, and all necessary materials, including hospital meeting rooms and data displays, were updated.

Phase 4: Implementing phase
This phase was included the following
- The internship nursing students were classified into subgroup contained various number of students who were available and allowed to researcher in each unit, as well as the researcher conduct the program for every subgroup on different time.
- All sessions were conducted in hospital teaching rooms and were tailored to the participants' working schedules.
- The researcher discussed purpose of the educational program, content and time table to the internship nursing students.
- Before each session began, the goals of the meeting were discussed. Before each session, comments regarding the previous session were gathered, and at the conclusion of each session, a summary of the current session was provided.
- At the last session thanks for the internship nursing students to their participation, summary about the program, distribution of post-test by using the same tools.
- The following instructional strategies were used: lectures, discussions, assignments, brainstorming sessions, and small-group projects.
- The time of the program was 20 hours for each subgroup; in which 2 sessions per day were given. Each session took about 2 hour.
- Powerpoint, video, and books were used as instructional resources.
- In three months, from the start of April 2023 to the end of May 2023, the training program was put into place.

Phase 5: Evaluation Phase
In this phase; internship nursing students were assessed by using all three tools. This phase conducted after the implementation of program for each subgroup of internship nursing students

according to its time from (the end of May 2023 to the beginning of June 2023)

Phase 6: Follow up Phase
This phase was implemented post three months from the implementation phase of the program. In this phase; internship nursing students were assessed by using all three tools. This phase conducted after the implementation of program for each subgroup of internship nursing students according to its time (at September 2023)

Ethical considerations
The study is formally approved when the intern nursing students who are willing to participate have been informed of its significance, nature, and goal. Privacy was considered during data collection, and all participants have the freedom to reject to participate and/or withdraw from it at any time without providing a reason. In order to protect their privacy, each participant was assigned a number instead of their name, and they were assured that all of their information would be kept in the utmost confidence.

Statistical design
Version 20 of the statistical package for social science (SPSS) was used to examine the data. The mean and SD were used to express numerical data. Frequencies and percentages were used to express quantitative data. Numerous tests, including the ANOVA test, Cochran's Q test, a chi-squared test ($\chi2$), and the Kruskal-Wallis test, were employed for quantitative data and variable comparison. Pearson correlation was used to test relationships between various numerical variables. Less than 0.05 was regarded as a significant probability (p-value), and less than 0.001 as a highly significant one.

Table 3: Percentage distribution of socio-demographic of internship students

Characteristics	Internship students (no.=60)	
	no.	%
Age		
20:23	49	81.7
>23	11	18.3
Gender		
Male	27	45
Female	33	55
Cumulative grade during college years		
Fair	2	3.3
Good	9	15
Very good	37	61.7
Excellent	12	20.0
Have you ever worked in hospitals before the Internship period?		
Yes	9	15
No	51	85
Have you ever worked in hospitals before the Internship period?		
Yes	15	25
No	45	75
Residence		
Rural	49	81.7
Urban	11	18.3
Clinical area		
NICU	30	50.0
HDUI	14	23.3
Dialysis ICU	16	26.7

Results
Table (3) Illustrates that (81.7%) of internship nursing students age ranged from (20-23) years old, and slightly more than half of them (55%) are females. Concerning Cumulative grade during college years, nearly two/thirds (61.7%) of them have very good grade, and the majority of them (85%) never worked in hospitals before the Internship period. In addition to work in hospitals during the Internship period more than three/quarter of them answered with (No) (75%). Moreover, the majority of them (81.7%) are from (Rural area) regarding residence. Also, half of them (50.00%) are worked in NICU clinical area.

Figure (1) represents that (86.7%) of internship nursing students have low score about conflict resolution knowledge in pre-test. While in immediate post-test and follow-up test of educational program implementation, internship nursing students have high level of knowledge about conflict resolution by (96.7% and 90% respectively) with highly statistical significant difference.
Also, the figure clarifies that there is highly statistical significant difference between three times of evaluation (pre-test, immediate post-test, and follow-up test) among internship nursing students p= 0.001.
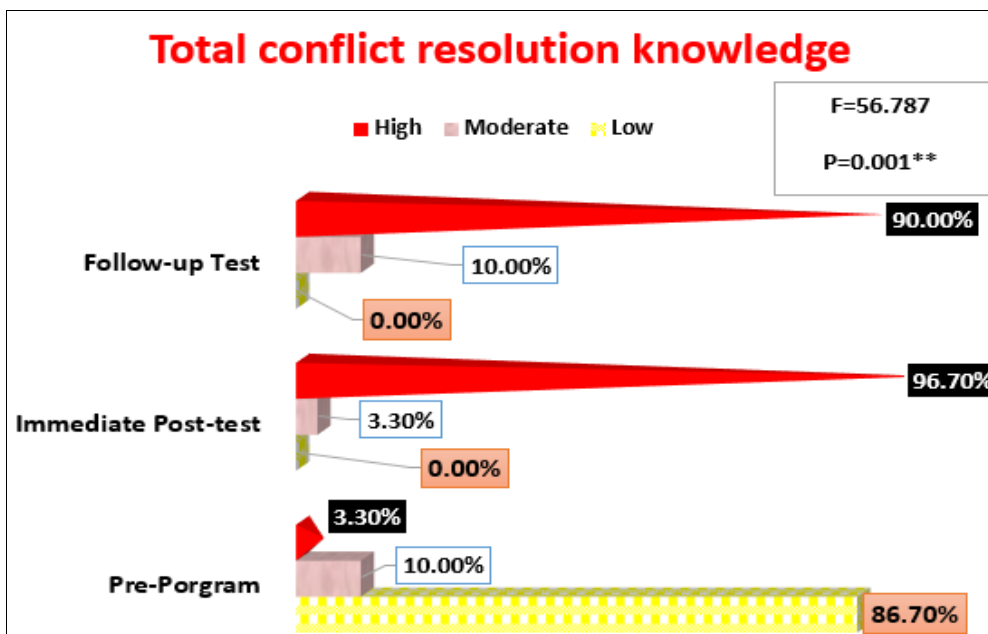
Fig 1: Percentage distribution of total conflict resolution knowledge among internship students (no=60)

Table 4: Percentage distribution of total conflict styles among two groups of internship students (no=60)

Conflict styles		Pre-test		Immediate- post test		Follow-up test		Test p-value
		No	%	No	%	No	%	
Collaborating	Least Preferred	0	0	0	0	0	0	4.379 (0.001**)
	Backup	2	3.3	0	0	0	0	
	Dominant	54	90.0	18	30.0	8	13.3	
	Very Dominant	4	6.7	42	70.0	52	86.7	
Accommodating	Least Preferred	0	0	0	0	0	0	5.112 (0.001**)
	Backup	10	16.7	0	0	0	0	
	Dominant	48	80.0	8	13.3	2	3.3	
	Very Dominant	2	3.3	52	86.7	58	96.7	
Compromising	Least Preferred	0	0	0	0	0	0	1.732 (0.08NS)
	Backup	8	13.3	0	0	0	0	
	Dominant	48	80.0	46	76.7	36	60	
	Very Dominant	4	6.7	14	23.3	24	40	
Competing	Least Preferred	0	0	44	73.3	44	73.3	4.690 (0.001**)
	Backup	54	90.0	16	26.7	16	26.7	
	Dominant	6	10.0	0	0	0	0	
	Very Dominant	0	0	0	0	0	0	
Avoiding	Least Preferred	0	0	48	80	48	80	4.768 (0.001**)
	Backup	4	6.7	12	20	12	20	
	Dominant	42	86.6	0	0	0	0	
	Very Dominant	4	6.7	0	0	0	0	

Table (4) shows that at pretest the dominant conflict styles by study sample of internship students are Collaborating style followed by the Avoiding style by (90% and 86.6% for both groups)

Moreover, at Immediate posttest the very dominant conflict styles by internship students are Accommodating followed by Collaborating style by (86.7%& 70% respectively), while the least preferred styles are Avoiding followed by Competing by (80%& 73.3% respectively).

Furthermore, at Follow up test) the very dominant conflict styles by internship students are Accommodating followed by Collaborating style by (96.7%& 86.7% respectively), while the least preferred style is (Avoiding) by (80%).

Moreover, it is worth noting that there is there are highly statistical significant differences in (both immediate posttest& follow-up test) scores at all conflict resolution styles except for compromising style there is no statistical significant difference.

Table (5) shows that regarding pretest, internship students have moderate level of resilience at work, the highest score for (managing stress, maintaining perspectives and finding your calling) by (100%, 93.3% and 93.3% respectively)

Regarding immediate posttest, internship students have high level of resilience at work, the highest score for (staying healthy, finding your calling and building social connection) by (80%, 76.7% and 66.7% respectively)

Moreover at follow up test internship students have high level of resilience at work, the highest score for (staying healthy, finding your calling and building social connection) by (73.3%, 73.3% and 56.7% respectively)

Table 5: Percentage distribution of resilience at work dimensions among internship nursing students (no=60)

Resilience at Work dimensions	Internship Nursing Students (no=60)						Test of significance	
	Pre		Immediate post		Follow		Friedman test	P value
	no.	%	no.	%	no.	%		
Living authentically								
Low	0	0.0%	0	0	0	0	11.556	0.003**
Moderate	44	73.3%	28	46.7	32	53.3		
High	16	26.7%	32	53.3	28	46.7		
Finding your calling								
Low	2	6.7	0	0	0	0	92.167	0.001**
Moderate	56	93.3	14	23.3	16	26.7		
High	0	0	46	76.7	44	73.3		
Maintaining perspective								
Low	0	0	0	0	0	0	19.000	0.001**
Moderate	56	93.3	40	66.7	42	70.0		
High	4	6.7	20	33.3	18	30.0		
Managing Stress								
Low	0	0	0	0	0	0	53.067	0.001**
Moderate	60	100	30	50.0	34	56.7		
High	0	0	30	50.0	26	43.3		
Building social connection								
Low	16	26.7	0	0	0	0	77.636	0.001**
Moderate	42	70.0	20	33.3	26	43.3		
High	2	3.3	40	66.7	34	56.7		
Staying Healthy								
Low	0	0	0	0	0	0	22.889	0.001**
Moderate	32	53.3	12	20.0	16	26.7		
High	28	46.7	48	80.0	44	73.3		
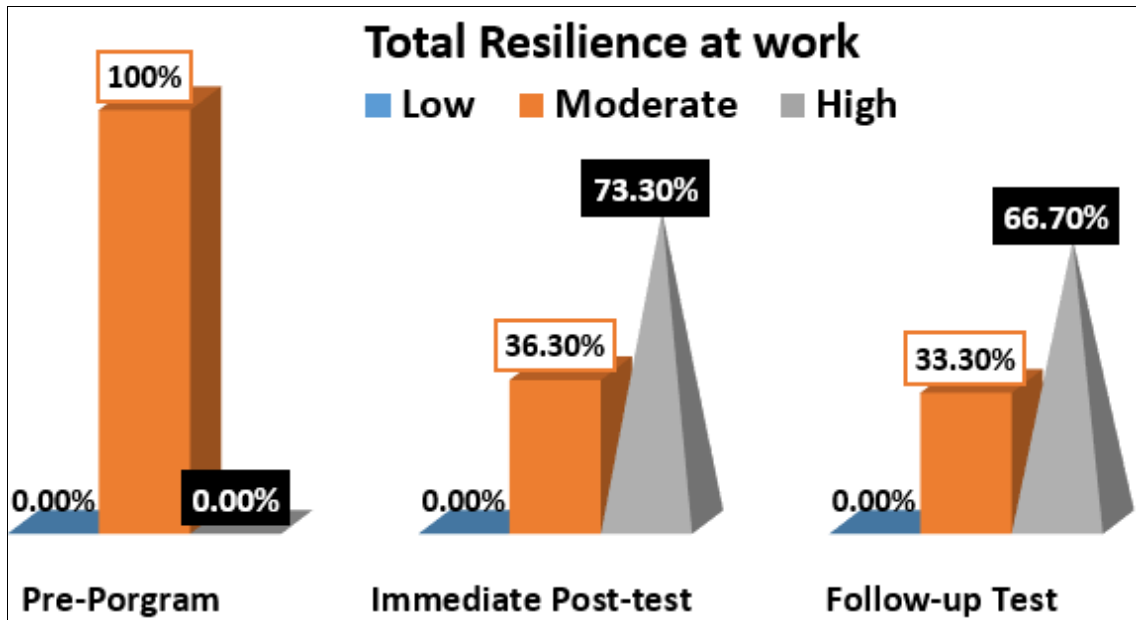
Fig 2: Percentage distribution regarding total level of resilience at work among internship nursing students (no=60)

Figure (2) illustrates that total level of resilience at work increased immediately after program implementation and three months later than preprogram for both study group one& two.

Regarding immediate posttest, study sample had high level of total resilience at work (73.3%).While at follow up test, table illustrated that study group one had high level of total resilience at work (66.7%), with higher statistical significant difference P= (.001**) and (0.001)

Table 6: Correlation between study variables among internship students pre-program implementation (no=60)

	Collaborating	Accommodating	Compromising	Competing	Avoiding	Total resilience
Conflict knowledge	0.073 0.742	0.078 0.885	0.031 0.913	-0.116 .576	-.130 .527	.082 .631
Collaborating		0.136 0.578	0.279 0.121	-.165 .341	-.131 .313	.081 .672
Accommodating			0.086 0.750	-.138 .496	-.146 .478	.123 .553
Compromising				-.245 .132	-.224 .152	.131 .523
Competing					.349 .115	-.348 .061
Avoiding						-.065 (.653)
Total resilience						

Table (6) illustrates that there is no statistically significant correlation between conflict resolution knowledge, conflict resolution styles and total resilience at work preprogram implementation.

Table 7: Correlation between study variables among the internship students post -program implementation (no. =60)

	Collaborating	Accommodating	Compromising	Competing	Avoiding	Total resilience
Conflict knowledge	0.4310.003**	0.4430.003**	0.6330.002**	-0.5470.002**	-0.323.005**	0.653.001**
Collaborating		.783**.001	.752**.001	-.396*.047	-.821**.000	.552.003**
Accommodating			.659**.001	-.415**.046	-.711**.001	.534.003**
Compromising				-.422*.017	-.710**.001	.653.002**
Competing					.439*.015	-.538.003*
Avoiding						-.615 0.001**
Total resilience						

Table (7) shows that conflict knowledge positively correlates with (collaborating, accommodating and compromising conflict styles) with statistical significant difference, and negatively correlates with (avoiding and competing conflict styles) with statistical significant difference.

Also, total resilience positively correlates with (collaborating, accommodating and compromising conflict styles) with statistical significant difference, and negatively correlates with (avoiding and competing conflict styles) with statistical significant difference.

Table 8: Correlation between study variables among the internship students follow-up test implementation (no=60)

	Collaborating	Accommodating	Compromising	Competing	Avoiding	Total resilience
Conflict knowledge	0.4710.003**	0.4630.003**	0.5330.002**	-0.6470.002**	-.383.005**	.643.001**
Collaborating		.713**.001	.732**.001	-.306*.047	-.621**.000	.592.003**
Accommodating			.659**.001	-.415**.046	-.611**.001	.574.003**
Compromising				-.412*.017	-.716**.001	.613.002**
Competing					.499*.015	-.508.003*
Avoiding						-.605 0.001**
Total resilience						

Table (8) shows that conflict knowledge positively correlates with (collaborating, accommodating and compromising conflict styles) with statistical significant difference, and negatively correlates with (avoiding and competing conflict styles) with statistical significant difference.

Also, total resilience positively correlates with conflict knowledge and (collaborating, accommodating and compromising conflict styles) with statistical significant difference, and negatively correlates with (avoiding and competing conflict styles) with statistical significant difference.

Discussion
Conflict resolution in nursing plays a crucial role in fostering a flexible work environment, particularly for internship nursing students who are often navigating the complexities of clinical settings. Effective conflict resolution strategies equip these students with the skills to address disagreements and misunderstandings constructively. As they learn to communicate openly and collaborate with their peers and healthcare professionals, they are better prepared to adapt to the dynamic nature of nursing. This adaptability not only enhances their learning experiences but also promotes a culture of teamwork, which is essential in delivering high-quality patient care (Lemana *et al.*, 2024) [29].

Moreover, the ability to resolve conflicts effectively encourages nursing students to embrace resilience in their roles. When students can manage conflicts, they are less likely to feel overwhelmed by challenges, allowing them to focus on patient care and their professional development. This resilience fosters a positive attitude toward change and uncertainty, which are inherent in the nursing profession. Ultimately, by prioritizing conflict resolution, nursing programs can help students cultivate the resilience needed to

thrive in their internships and future careers, leading to improved outcomes for both the students and the healthcare teams they join (Liu *et al.*, 2022) [30].

The actual study showed, regarding the socio-demographic data the highest percentage of internship nursing students age ranged from (20-23) years old, and slightly more than half of them were females. Concerning Cumulative grade during college years, nearly two/thirds of them had very good grade, and the majority of them never worked in hospitals before the Internship period. In addition to work in hospitals during the Internship period more than three/quarter of them answered with (No). Moreover, the majority of them were from (Rural area) regarding residence. Also, half of them were worked in NICU clinical area.

This study revealed that the conflict resolution level of knowledge among the majority internship nursing students was low in the pre-test. While at the immediate post-test and after three months was high level of knowledge for all questions. These results suggest that in pretest there is a decrease of understanding or knowledge related to conflict resolution and management among both the internship nursing students. So, it may be beneficial to address this knowledge gap through targeted interventions or additional training to improve conflict resolution skills among nursing students.

It is also may be regarded to their limited experience as Internship nursing students are still in the early stages of their training and may not have encountered many high-stress, emergent situations or interpersonal conflicts so, they may not have had the opportunity to develop and refine their conflict resolution skills in such demanding scenarios. Also as emergent situations can be highly stressful and emotionally charged for them and patients so, the intensity of these situations can make it more challenging for student to how effectively manage conflicts and find mutually satisfactory resolutions.

Moreover, the results of the post and follow up tests indicate that there was an improvement in conflict resolution knowledge among the internship nursing students. These results suggest that the intervention or additional educational provided to the students had a positive impact on their conflict resolution knowledge. It indicates that targeted interventions can be effective in improving conflict resolution skills among nursing students.

These results are corroborated by Azb *et al*, (2019) [5] revealed that re-licensure nursing students in a study comparing Egyptian and Nigerian students had a similar low degree of understanding of conflict knowledge and behavior. However, when the intervention program was put into place, the study's findings showed that nursing students' understanding had significantly improved. Another study by Choi and Ahn (2021) [11], who found that their post-test conflict resolution skills increased. They clarified that the objective conflict resolution ability was considerably higher after the program than it was before ($p < 0.001$), indicating that the conflict resolution training program was successful in enhancing nursing students' problem-solving and conflict-resolution skills

Also, Gunasingha *et al.*, (2023) [21] found that a significant number of participants reported low levels of knowledge regarding conflict resolution strategies. This study suggested that enhancing educational curricula to include comprehensive training on conflict management could improve students' preparedness for real-world clinical challenges. Moreover, a qualitative study by Abd El-Moneam and Gaballah (2023) [2] found that nursing students often lacked adequate knowledge and skills in conflict resolution, which impacted their ability to manage conflicts effectively during their internships. The study emphasized the need for improved training in conflict management strategies to enhance their competencies in clinical settings.

The results of this study show that While the level of knowledge at (post & follow up tests) was higher than (pretest) in all conflict resolution styles. This implies that there was an enhancement in conflict resolution knowledge as well as understanding among the students in both groups.

The higher scores suggest that the interventions or additional training implemented for student had a positive effect on their knowledge as well as application of various conflict resolution styles. This improvement is promising, as it indicates that the students gained a better understanding of conflict resolution techniques and were able to apply them effectively.The sustained improvement observed at the follow-up test suggests that the interventions had a lasting impact on the students' conflict resolution skills. This is important because it indicates that the knowledge and skills acquired during the study were retained and continued to benefit the students even after the immediate posttest.

Overall, these findings indicate that the interventions or additional training provided to the internship nursing students were successful in enhancing their conflict resolution knowledge and skills, as evidenced by the higher mean scores at the posttest and follow-up tests compared to the pretest. This came in the same line with Gunasingha, *et al*, (2023) [21] who conducted research on the use of conflict resolution among medical students discovered that following the training, the students' conflict resolution techniques advanced to a greater degree.

The actual study findings revealed that regarding conflict resolution styles at pretest the dominant conflict styles by study sample of internship students are Collaborating style followed by the Avoiding style, while at post and follow up tests the very dominant conflict styles by internship students are (Accommodating followed by Collaborating style). Regarding pretest, this finding suggests that these students tend to prioritize cooperation and mutual problem-solving when faced with conflicts, while also showing a tendency to sidestep issues when they feel it may be more beneficial or less confrontational.

This supported by Ibrahim and Hussein (2024) [25]. Who indicates that the use of the avoiding style can be prevalent among internship students who may feel inexperienced or anxious about confronting conflicts directly? A study indicated that many nursing students initially prefer to avoid conflicts, especially in high-pressure environments like clinical settings, as they may lack confidence in their conflict resolution skills. In contrast to these findings a study by Balafkan *et al.*, (2023) [7]. Have found that while collaborating is beneficial, many students, particularly in competitive academic environments, may lean towards a competing style. This can lead to conflicts being addressed more aggressively rather than collaboratively, which may not always yield positive outcomes.

Regarding post and follow up tests this suggests that internship students are often the junior members of a nursing team and frequently asking for advice so; these two styles were particularly effective in helping them achieve work effectively in their care setting with other health care members. Also, as the collaborating style emphasizes a cooperative approach where individuals work together to find a mutually beneficial solution. This style encourages active participation, open communication, and the integration of diverse perspectives. It seems that the nursing students who employed this style were able to leverage their collective knowledge and skills effectively, resulting in better outcomes. Also, prioritizing the needs of others and being flexible in their approach, these students may have fostered positive relationships and teamwork, which contributed to their best benefits.

These findings are the same as that of a study by Assi and Eshah (2023) [4] which examined conflict management styles utilized by nurses and found that most used styles were the integrating style, followed by the accommodating style. Also, the study findings are supported with Gunasingha, et al. (2023) [21] they discovered that among fourth-year medical students, the accommodating style was the most prevalent approach to conflict resolution. The accommodating style prioritizes meeting the demands or worries of the other person over one's own. Since medical students are frequently the junior members of a medical team, they tend to focus on the needs of others, which is likely to contribute to conflict styles that are centered on appeasing the opposing side.

Moreover, study findings revealed that the least preferred styles are (Avoiding followed by Competing). For nursing students, this may stem from a desire to maintain harmony or a lack of confidence in navigating difficult conversations. While avoiding conflict can sometimes provide temporary relief, it typically does not address underlying issues, which can lead to unresolved tension and hinder team cohesion. In a clinical setting, where effective communication is crucial for patient care, this avoidance can negatively impact teamwork and collaboration, leaving issues unaddressed that could affect the quality of care. Also, the preference against competing may reflect an understanding among internship nursing students that effective teamwork requires cooperation and mutual respect. Acknowledging that healthcare is a team effort, students may recognize that fostering positive relationships and open communication is more beneficial than pursuing individual victories in conflicts.

These findings are the same as that of Assi and Eshah (2023) [4] examining conflict management styles utilized by nurses and found the avoiding and competing styles were the least commonly used styles. This in contrary to EL-Shaer and Gaber (2020) [18] who demonstrated that nurses most frequently employ the competitive style of conflict management, and that most techniques, with the exception of the avoidance style, are less common among nurses. Additionally, according to those experts, employing a competitive attitude is beneficial for fostering a pleasant and competitive environment that inspires people to voice their thoughts and come up with original solutions.

Regarding resilience at work dimensions at immediate posttest, internship students have high level of resilience at work, the highest score for (staying healthy, finding your calling and building social connection). This indicates that programs that incorporate conflict resolution often emphasize the importance of maintaining mental and emotional health. By learning to navigate conflicts constructively, students may experience reduced stress levels, contributing to better overall health. Also, conflict resolution training can help individuals clarify their values and goals, which is essential for finding one's calling. When students feel more competent in handling workplace challenges, they are more likely to pursue their passions and career aspirations with confidence. Moreover, the ability to resolve conflicts effectively fosters stronger relationships among peers and colleagues. As students learn to communicate better and collaborate, they build social networks that provide support, further enhancing their resilience.

These findings supported by, Azila-Gbettor et al., (2022) [6] who indicate that participation in conflict resolution training programs reported significant improvements in their ability to manage stress and maintain healthy relationships. This suggests that such training can enhance resilience by equipping individuals with effective coping strategies. It also can lead to better mental health outcomes. Participants often experience reduced stress levels and improved emotional well-being, which are critical components of resilience. In the same line Malik and Garg (2018) [32] show that effective conflict resolution fosters stronger interpersonal relationships. As students learn to communicate and collaborate better, they build supportive social networks that enhance their resilience.

The actual study findings illustrate that regarding total level of resilience at work it increased immediately post program implementation as well as three months later than preprogram. Regarding immediate posttest and follow up test, internship nursing students had high level of total resilience at work and the higher percentage was for immediate posttest, with higher statistical significant difference

This suggests that the educational programs, focusing on conflict resolution had a positive effect on the participants' resilience at work. Moreover, developing conflict resolution, individuals may become more adaptable, flexible, and better equipped to handle workplace challenges and conflicts, ultimately enhancing their resilience at work.

Additionally, this come in the same line with Unjai et al., (2024) [38] indicate that individuals who engage in conflict resolution training are better equipped to manage interpersonal relationships and workplace dynamics, which further supports their resilience and adaptability in various situations. Also, these results are accorded to Malik and Garg (2018) [32] who reported that focusing on conflict resolution skills among different backgrounds and people at work lead to higher resilience at work which increase "the ability of a person to deal with negative circumstances and the daily stress of work while staying healthy, recovering and learning from unforeseen setbacks, and proactively preparing for future challenges, exhibiting greater competence, professional development, and the capacity to manage future challenges and successfully manage everyday stressors in the workplace.

The actual study reveals that regarding correlations, conflict

knowledge positively correlates with all conflict styles and total resilience, indicating that students who are more knowledgeable about conflict management are better equipped to handle conflicts effectively. This aligns with the notion that understanding conflict dynamics enhances one's ability to engage in constructive conflict resolution, which is crucial in nursing settings where teamwork and communication are vital.

Also, total resilience positively correlates with conflict knowledge and (collaborating, accommodating and compromising conflict styles) this positive correlation suggests that resilient students are more likely to engage in cooperative and constructive approaches to conflict. This is significant because these styles are generally associated with positive outcomes in team dynamics and patient care, fostering a supportive work environment.

Conversely according to current study findings, total resilience were negatively correlates with (avoiding and competing conflict styles) with statistical significant difference. This indicates that students who tend to avoid conflicts or adopt a competitive stance may experience lower resilience. This finding is critical as it suggests that these conflict styles can lead to unresolved issues and increased stress, which may hinder a student's ability to cope effectively in challenging situations.

These findings supported by, Cuartero and Tur (2021) [12]; El-Sayed *et al.*, (2021) [17] and Warshawski (2022) [40], who support the idea that conflict management skills are essential for nursing students, as they enhance resilience and overall well-being during clinical training. Also a study by Labrague and Ballad (2021) [28] found that resilience is a protective factor against burnout and stress among nursing students, they also indicate that resilience is positively correlated with effective conflict resolution styles.

Moreover, In contrast to these findings, a study by Mayor-Silva *et al.*, (2024) [33] suggested that while resilience is important, it does not always correlate positively with collaborative conflict styles. Some students may exhibit resilience through avoidance strategies, particularly in high-stress environments where confrontation is perceived as risky. Additionally, researchers indicated that while knowledge of conflict resolution is beneficial, it does not guarantee the application of collaborative styles, as personal and contextual factors can influence how students respond to conflict.

Conclusion
The implementation of a conflict resolution educational program has a significant impact on enhancing resilience at work among internship nursing students.

This study findings revealed that the total level of resilience at work increased immediately after program implementation and three months later than preprogram implementation

Recommendations
The following suggestions were made in light of the current research's findings:
- Provide practical case studies as well as simulations: that reflect real-world scenarios to enhance students' understanding and application of conflict resolution skills.
- Organize workshops where students can engage in role-playing scenarios that mimic real-life conflicts in healthcare settings.
- Establish partnerships with nursing schools to ensure the integration of conflict resolution training in their curriculum.
- Provide training for faculty members on the importance of conflict resolution and resilience in nursing education.

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