

Effect of Entrepreneurship Training Program for Nursing Students on Their Entrepreneurial Intention and Motivation

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Abstract

Background: Entrepreneurship is the heart of creativity towards positive change, and it is one of the important sources of economic development and job growth in a country. Growth rate of entrepreneurship varies from country to country and even from time to time in the same country. **Aim:** Determine the effect of entrepreneurship training program for nursing students, on their entrepreneurial intention and motivation. **Design:** Quasi-experimental, research design used to conduct this study. **Setting:** This study was conducted at Faculty of Nursing, Damnhour University. **Subjects:** A simple random sample was used in this study and included a sample of 4th year male and female nursing students for the academic year 2021-2022 (n=122) who was available and agree to participate in this study **Tools:** four tools were used for data collection in this study. Tool one: Entrepreneurship Knowledge Assessment Questionnaire. Tool two: Entrepreneurial Intention Questionnaire. Tool three: Entrepreneurial Motivation Questionnaire. Tool four: Training Program Evaluation Questionnaire. **Results:** There was a highly positive statistically significant correlation between nursing student's entrepreneurship knowledge and both of entrepreneurial intention and motivation where, $p = 0.001$. and There was positive significant correlation between nursing students' entrepreneurial intention and entrepreneurial motivation. **Conclusion:** there was a positive statistical significance correlation between nursing students entrepreneurship knowledge and entrepreneurial intention and motivation and most of 4th year nursing students had a satisfactory knowledge about entrepreneurship during immediately post and follow up (after 1 month) program phase compared with pre-program phase and more than half of studied nursing students had low level regarding overall entrepreneurial intention at preprogram phase, but it is improved to be high level at immediately post program and follow up, near half of studied nursing students had moderate level regarding overall entrepreneurial motivation at preprogram phase, but it is improved to be high level at immediately post program and follow up. **Recommendations:** Adding a course about entrepreneurship and courses that serve entrepreneurship to educational programs from undergraduate to doctoral program at different faculties of nursing as financial management courses, marketing courses and business planning courses which will help entrepreneurs in business development.

Keywords: entrepreneurship, Entrepreneurial intention and motivation, Nursing students.

Introduction

The worldwide population increases day by day, but job opportunities do not grow at the same pace, which creates a problem of unemployment. Jobless people who are now becoming a burden on the economy, not only in developing countries, but also in developed countries. so entrepreneurship takes part an

essential role in the economy of every country (Ferreira et al., 2023) Entrepreneurship is the heart of creativity towards positive change, and it is one of the important sources of economic development and job growth in a country. Growth rate of entrepreneurship varies from country to country and even from time to time in the same country. Entrepreneurship was defined by (Gianiodis,2019) as "it's a result of creating new business opportunities and they

could be later converted into marketable products and services.” Another definition by (Liu et al.,2019) and (Hessels & Naude 2019) who defined entrepreneurship as “A generating job opportunities and a key driving force of a nation’s economic development.” Entrepreneurship offers a career option for nurses seeking autonomy in their practice. Entrepreneurship assists the government in financial contribution, which is leading to social and human welfare, which creates value in society. So, most of governments implement various policies to offer economic incentives for new entrepreneurial projects and provide them with financing and offer basic training to boost their skills (Crocì, 2016). Today, one of the main universities functions is establishing and developing an entrepreneurship-oriented economy through establishing entrepreneurship courses as an introductory course at the undergraduate level. Entrepreneurship helps the students to cope with the increasingly competitive world and encourage them to design and lead their own projects that improving their own finances and the economics of the country through small projects (Zollo et al., 2017). Nurse entrepreneurs may build their businesses based on nursing profession and under academic institutions supervision such as: skill educating and training, palliative care / home care, health counseling. Despite the challenges that nurse entrepreneurs face, entrepreneurship could maximize nurses’ opportunities for achieving obvious vision, greater career, job satisfaction and improve their health. Entrepreneurial motivation is a crucial link between entrepreneurial intention and action. Entrepreneurial intention relates to the desire to create, start one’s own business. An understanding of this will have a positive impact on solving daily social problems and environmental challenges, such as unemployment, hunger, high crime rates, and poverty (Cadmus et al., 2017). Entrepreneurial intention was defined by (Schneider & Bartram2017) as “It’s the subjective attitude of possible entrepreneurs regarding whether to carry out entrepreneurial activities, and it is a good predictor of entrepreneurial behavior.” Many factors may have impacted the intention of being an entrepreneur, such as the personal purpose of

being independent and achieving personal goals, the confidence of being able to follow one's dreams and aspirations, recognizing opportunities and taking the chance to grasp these opportunities despite the risks that accompany it. All these factors will positively had an impact on the worthiness of the decision, make it viable to take the decision, and will positively impact the intention to become an entrepreneur. (Hien& Beri 2018).

The factors that could trigger a person's intention to start an entrepreneurial venture such as: entrepreneurship educational program, past experience, culture, gender, family experience with entrepreneurship, age, role model, personality traits, economic factors of self and country, values, beliefs, social norms, self-confidence, attitude toward entrepreneurship, internal and external motivation, self-awareness and awareness about entrepreneurship, financial and moral support from their families Tiwari et al., 2020. Enhancing both entrepreneurial intention and motivation is vital for economic growth of new ventures that would create job opportunities for the youth and the unemployed, link between entrepreneurial motivation and entrepreneurial intention consider antecedents among the youth to start their business (Malebana,2014). It is important to expand the understanding of factors that motivate people to become entrepreneurs so that they could establish their projects, strengthen their aims and plans. Entrepreneurial motivation refers to the willingness of nurses to exert an effort to start their own businesses. Entrepreneurs who have goals and needs they want to achieve are primary motivators that lead entrepreneurs to start a business. Entrepreneurial motivation is vital for the creation and growth of new ventures. (Murnieks, Klotz &Shepherd,2019). It plays a key role in all stages of the entrepreneurial process and depending on the outcomes realized from engaging in the process, as it could keep entrepreneurs committed to their ventures (Barba & Atienza,2017).

Significance of the study

Entrepreneurship in nursing is crucial and could help to overcome some problems as dissatisfaction of nurses for their salaries. In a study conducted by (Hamed, 2018) who revealed that the staff nurses were dissatisfied with their payment, there for, Entrepreneurship could overcome another problem as leaving the nursing profession. In a study conducted by (Ahmed,2017) who revealed that 71% of nurses prefer to leave the nursing profession and study another field this is a serious problem which facing hospitals that leads to shortage of the staff, increase absenteeism rate and increase turn over , and decrease commitment of the staff to the profession. So entrepreneurship presents an opportunity to explore nursing's professional and increase recognition of the value of nursing services, this leads to increase nurses job satisfaction, decrease turn over and absenteeism rate increase commitment to the profession increase autonomy and financial revenue for nurses.

so it is hopefully that the result of the present study will increase knowledge of the nursing students about entrepreneurship, which help nurses to be job creators rather than job seekers and help nurses to change their roles from only provide care to patient to produce effective projects for them.

Aims of the Study

This study aimed to Determine the effect of entrepreneurship training program for nursing students, on their entrepreneurial intention and motivation.

Research Hypotheses.

There is a positive effect of entrepreneurship training program on entrepreneurial intention and entrepreneurial motivation among 4th year nursing students at Damanhour University.

Materials and Method

Design: A quasi-experimental, research design was used to achieve the aim of the current study.

Setting: This study was conducted at Faculty of Nursing, Damanhour University which includes nine scientific departments namely: Nursing Administration, Medical and Surgical Nursing, Pediatric Nursing, Gerontology Nursing, Community Health Nursing, Obstetric and Gynecological Nursing, Psychiatric and Mental Health Nursing, Critical Care and Emergency Nursing, and Nursing Education.

Subjects: In this study included 122 out of 440 of 4th year male and female nursing students in the academic year 2021-2022 who were available and agree to participate in this study.

According to Epi Info 7 Program to estimate the sample size given that:

Population size= 440

Estimated proportion=50%

Acceptable error=10%

Confidence coefficient=99%

Minimum sample size=121

final sample size will be =124

Tools: The study used three tools for data collection.

Tool (I): Entrepreneurship Knowledge Assessment Questionnaire. It was developed by the researcher, based on the review of related literature (Renko et al.,2015) and (Kuratko,Morris&Schindehutte,2015) and (Moyaka, Namusonge & Sikalieh,2012) to assess 4th year nursing students knowledge regarding entrepreneurship before and after the implementation of the training program and there were 30 questions. The questions were in two forms true and false and multiple-choice questions. Responses are either correct or incorrect. Correct answer will take (1) score while incorrect answer will take (0). The total score was categorized into three levels as the following: poor knowledge about entrepreneurship < 50 %, unsatisfactory level

of knowledge about entrepreneurship and 50 % ≥ 75 %, satisfactory level of knowledge about entrepreneurship.

Tool(II):Entrepreneurial Intention Questionnaire:

It was developed by the researcher based on a thorough review of related literature (**Mohamed,2020,Nieuwenhuizen Swanepoel 2015& Lee, Chang, Lim 2005**) to measure entrepreneurial intention ,it was consisted of 38 items grouped under 2 main dimensions namely: Measures of entrepreneurial intention (13 items);Entrepreneur characteristics (25 items) which is divided into 10 sub-dimensions ,namely: opportunity seeking (2 items);perseverance (2 items);risk taking (2 items);demand for efficiency and quality (2 items)commitment to work contract (2items);information seeking (3items); goal setting (2 items);planning (3 items);persuasion and networking (3 items)and self-confidence (4 items) Responses to the questionnaire items were measured on 3- point Likert scale ranging from (1) disagree to (3) agree. The total score according to statistical cut of point was ranged from 38 To 114 and was categorized as follow: low level entrepreneurial intention from (38-75), moderate level of entrepreneurial intention from (76-95), and high level of entrepreneurial intention from (96-114) that are calculated according to mean percent score as follows; Low level of entrepreneurial motivation < 50 %,Moderate level of entrepreneurial motivation 50 % < 75 %, and High level of entrepreneurial motivation ≥ 75 %.

Tool (III): Entrepreneurial Motivation Questionnaire.

It was developed by the researcher after a thorough review of related literature (**Gutoi,2021,Sarmiento2016, Solesvik,2013, Fatoki,2010,Shane,2003**).It included 43 items divided into seven main dimensions, namely: achievement and challenges (10 items); independence and autonomy (7items); income security and financial success (6 items); recognition and status (4 items); family and roles (5 items); community and social motivations (6 items) and dissatisfaction (5

items). Responses was measured on a 3-point Likert scale ranging from (1) disagree to (3) agree. The total score according to statistical cut of point was ranged from 43 to 129 and was categorized as follow: low level of entrepreneurial motivation from (43-85), moderate level of entrepreneurial motivation from (86-107), and high level of entrepreneurial motivation from (108-129), that are calculated according to mean percent score as follows; Low level of entrepreneurial motivation < 50 %, Moderate level of entrepreneurial motivation 50 % < 75 %, and High level of entrepreneurial motivation ≥ 75 %.

Method

1. An official permission was obtained from the Dean, Faculty of Nursing-Damanhour University, and heads of related scientific departments to collect the necessary data and implement the program.

2. Tools I, II and III were translated into Arabic and submitted in both Arabic and English languages to five experts in the field of the study at Faculty of Nursing, Damanhour University, Alexandria University and Tanta University to be tested for their translation and content validity.

3. A pilot study was carried out for tools I, II, III on (10%) of total sample size (n=12) from 4th year nursing students and it was excluded from target subject to ensure the clarity and feasibility of the developed tool and to identify obstacles and problems that may be encountered during data collection and estimate the time needed to fill in the questionnaires and the necessary modifications were done.

4. Tools I, II and III were tested for their reliability by Cronbach's alpha correlation coefficient test for tool I, reliability co-efficient ($r=0.726$) for tool II ($r= 0.893$) for tool III ($r = 0.820$).

Ethical considerations:

-Before data collection: the approval of the Scientific Research Ethics Committee at the faculty was obtained, informed consent was

obtained from for 4th year nursing students, for participation in the study to collect the necessary data.

-confidentiality of the data was maintained.

-Privacy of subjects was assured and the right to participate or withdraw from the study was assured during this study .

-Anonymity of the data was maintained.

Data collection:

The study data were collected in the three phases.

-The study data were collected by hand -delivered the questionnaire to the study sample among 4th year nursing students and returned, back to the researcher, the needed instructions were provided to them.

Phase (1):Assessment phase:

- Data were collected by the researcher using tool I, II, and III from the selected study sample among 4th year nursing students(n=122).

- Data collection took about one month and half for pretest and immediately posttest started from 15march 2022 to 30 April 2022.

- Assessment was carried out by the researcher to collect data about from the study sample selected from 4th year nursing students by the following approach:

a) Tool I: The 4th year nursing student's knowledge about entrepreneurship questionnaire to assess the level of their knowledge about entrepreneurship before implementation of the training program.

b) Tool II: The 4th year nursing students Entrepreneurial Intention questionnaire to assess the level of their entrepreneurial intention before implementation of the training program.

c) Tool III: The 4th year nursing student's Entrepreneurial motivation questionnaire to assess the level of their entrepreneurial motivation before implementation of the training program.

d) Answering the questionnaire by each nursing student took approximately 30-45 minutes to be completed.

e) Data collection of phase 1 took place from 15 March to 30 March 2022.

Phase (2): Implementation phase:

The training program was developed and implemented based on students need assessed during the pre-assessment phase for the selected 4th year nursing students (n=122) which they were distributed in to four different departments as administration department, psychiatric department, geriatric department, and community department. The selected study sample divided into six groups. Four groups composed of 20 students and two groups were 21 students. Each group attended four training sessions with 12 hours (9 hours for the theoretical part and 3 hours for the practical part). Sessions were distributed over four meetings which took four days for each group. The time of each session ranged from 2-4 hours with a coffee break. The following educational methods were utilized: lecture, group discussion, brainstorming as well as power point presentation. This phase took place from 1 April 2022 to 30 April 2022. To achieve the aim of the program and each specific objectives of the program which included items as: introduction of entrepreneurship, definition of entrepreneurship, business, entrepreneur, important aspects of entrepreneurship, importance of entrepreneurship, characteristics of successful entrepreneur, entrepreneurial process, opportunities of entrepreneurship, barriers of entrepreneurship, motivators to be entrepreneur and factors influencing the business, definition of business idea, criteria of good business idea, examples for business ideas for nurses, definition of business plan, importance of business plan and steps of business plan, definition of marketing, benefits of marketing, factors affecting marketing, marketing plan process and characteristics of effective marketing plan, definition of records and recordkeeping, importance of record keeping, tools of record keeping and business software options.

Phase (3): Immediately Post – implementation phase:

-Tools I, II and III were distributed again to 4th year nursing students post implementation of the program.

Follow up Assessment Phase:

-The follow up assessment was conducted after one month before 4th year nursing students graduation. By reusing tools I, II and III, for the study sample from 4th year nursing students to validate the effect of the entrepreneurship training program implementation regarding 4th year nursing students entrepreneurial intention and entrepreneurial motivation, this phase took place from 1 June 2022 to 15 June 2022.

After completion of data collection a proper statistical analysis was used.

Statistical Analysis:

The collected data were coded and entered into (SPSS)program version 20 for analysis. Data were analyzed during different periods of assessment (pre, immediately post program implementation and follow up phase) using the descriptive statistics in the form of:

-Quantitative data were described using range (minimum and maximum), mean, and standard deviation, median.

-The Chi-square test was used to investigate the associations between the categorical variables. Correction for chi-square was conducted using (Mont Carlo correction)

-Significance of the obtained results was judged at the 5% level ($P \leq 0.05$).

-The used tests were Friedman test for abnormally distributed quantitative variables, to compare between more than two periods or stages and Post Hoc Test (Dunn's) for pair wise comparisons .

-Spearman coefficient to correlate between two distributed abnormally quantitative variables. the sign of coefficient indicates the nature of relation (positive/negative).While, the value indicates the strength of relation as follow : $r = (0.00-0.19)$, very weak correlation, weak correlation for $r = (0.20-0.39)$, Moderate correlation for $r = (0.40-$

$0.59)$ Strong correlation for $r = (0.60-0.79)$, very strong correlation for $r = (0.80-1.0)$

Results

Table (1): the result of the current study showed that slightly more than three quarters (77.9%) of the studied nursing students were females, and slightly less than three quarters (71.3%) their place of residence was urban. In addition, the table presented that the majority (96.7%) of studied nursing students haven't private business. Moreover, the highest percentage (67.2%) of studied nursing students didn't have family or friends who worked in his /her own private business. Furthermore, the majority of studied nursing students (93.4) haven't any previous knowledge about entrepreneurship.

Table (2): illustrated that, the majority (80.3%) of studied nursing students had unsatisfactory level of knowledge regarding entrepreneurship at preprogram phase, but it improved to be 91.8% immediately post program and then decreased to 60.7 % post one month. Furthermore, there is a statistically significant difference among studied nursing students' knowledge about entrepreneurship at the three phases where, $F = 185.117$, $P \leq 0.001$.

Table (3): illustrated that, more than half of studied nursing students (61.5%) had low level regarding overall entrepreneurial intention at preprogram phase, but it is improved to be high level immediately post program implementation and post one month (96.7%,82.0%) respectively with a statistically significant difference where, $F = 179.619$, $P \leq 0.001$.

Table (4): illustrated that, about 49.2% of studied nursing students had moderate level regarding overall Entrepreneurial Motivation at preprogram phase, but it is improved to be high level immediately post program implementation and post one month (97.5%,76.2%) respectively with a statistically significant difference where, $F = 186.355$, $P \leq 0.001$.

Table (5): In relation to preprogram there was a positive statistical significance correlation between nursing student's entrepreneurship knowledge with entrepreneurial intention where, ($p=0.027$). Regarding immediately post program phase, there was a positive statistically significant correlation between nursing students entrepreneurship knowledge and entrepreneurial intention and motivation where, $p =0.001$ for both. In addition, there was a positive significant correlation between nursing students' entrepreneurial intention and entrepreneurial motivation immediate post program implementation phase. Finally, in the follow up phase there was a positive statistically significant correlation between nursing student's entrepreneurship knowledge and entrepreneurial intention and motivation where, ($p=0.001,0.022$) respectively. Also, there was a positive significant correlation between nursing students' entrepreneurial intention and entrepreneurial motivation where, ($p=0.015$).

Table (1): Distribution of the studied nursing students according to the demographic characteristics.

	Demographic characteristics	Total (N=122)	
		No.	%
1	Gender		
	Male	27	22.1
	Female	95	77.9
2	Place of residence		
	Rural	35	28.7
	Urban	87	71.3
3	Are you have any private business		
	Yes	4	3.3
	No	118	96.7
4	If yes, mention the type of this business.		
	Installment sale of clothes	1	25.0
	Trade	1	25.0
	Supermarket	1	25.0
	Furniture painting	1	25.0
	Total	4	100
5	Is there any one of your family or friends worked his /her own private business		
	Yes	40	32.8
	No	82	67.2
6	If yes, mention relative relation		
	Father	10	25.0
	Sisters and brothers	15	37.5
	Husband	3	7.5
	Uncle	5	12.5
	Cousin	4	10
	Colleague	3	7.5
	Total	40	100
7	Do you Have any previous knowledge about entrepreneurship		
	Yes	8	6.6
	No	114	93.4
8	If yes, mention the source of this knowledge		
	Internet	4	50
	Entrepreneurship courses	2	25
	My own work	1	12.5
	Friend	1	12.5
	Total	8	100

Table (2): Distribution of the studied nursing students according to overall levels of entrepreneurship knowledge assessment in the three phases(n=122)

Entrepreneurship knowledge	Pre program		Immediate Post program		Post one month (Follow Up)		F	P
	No.	%	No.	%	No.	%		
Poor knowledge	98	80.3	1	0.8	6	4.9	185.117	≤0.001**
Fair knowledge	22	18.0	9	7.4	42	34.4		
Good knowledge	2	1.6	112	91.8	74	60.7		

** A highly statistically significant difference $P \leq 0.001$

Poor knowledge (<50%) Fair knowledge (50 – <75%) Good knowledge ($\geq 75\%$)

F: Friedman test.

Table (3): Distribution of the studied nursing students according to overall levels of entrepreneurial intention in the three phases (n = 122).

Overall entrepreneurial intention	Preprogram		Immediate Post program		Post one month (Follow Up)		F	P
	No.	%	No.	%	No.	%		
Low level.	75	61.5	0	0.0	0	0.0	179.619	≤0.001**
Moderate level.	26	21.3	4	3.3	22	18.0		
High level.	21	17.2	118	96.7	100	82.0		

** A highly statistically significant difference $P \leq 0.001$

Low level (<50%)

Moderate (50% <75 %)

High level ($\geq 75\%$)

F: Friedman test.

Table (4): Distribution of the studied nursing students according to overall levels of entrepreneurial motivation in the three phases (n = 122)

Overall entrepreneurial motivation	Pre program		Immediate Post program		Post one month (Follow Up)		F	P
	No.	%	No.	%	No.	%		
Low level.	48	39.3	0	0.0	0	0.0	186.355	<0.001**
Moderate level.	60	49.2	3	2.5	29	23.8		
High level.	14	11.5	119	97.5	93	76.2		

**A highly statistically significant difference $P \leq 0.001$

Low level (<50%)

Moderate (50% <75 %)

High level ($\geq 75\%$)

F: Friedman test

Table (5): Correlation between entrepreneurship training program of studied nursing students on their entrepreneurial intention and motivation.

			Knowledge	Intention	Motivation
Pre program	Knowledge	r_s		0.200	0.130
		P		0.027*	0.153
	Intention	r_s			0.129
		P			0.158
	Motivation	r_s			
		P			
Immediate Post program	Knowledge	r_s		0.482	0.595
		P		0.001**	0.001*
	Intention	r_s			0.783
		P			0.001**
	Motivation	r_s			
		P			
Post one month (follow up)	Knowledge	r_s			
		P			
	Intention	r_s		0.285	0.207
		P		0.001**	0.022*
	Motivation	r_s			0.220
		P			0.015*

*: Statistically significant at $p \leq 0.05$

r_s : Spearman coefficient

Evans (1996) suggests for the absolute value of r: 0.00-0.19: "very weak" 0.20-0.39: "weak" 0.40-0.59: "moderate"

0.60-0.79: "strong" 0.80-1.0: "very strong"

Discussion

Entrepreneurship is a phenomenon that is essential to economic growth and sustainable development of countries as well as the creation of employment and prevention of economic crises. There is also an increasing expectation that entrepreneurship will address the unemployment challenges which were facing the new nursing graduate. Entrepreneurship involves identifying, evaluating, and exploiting opportunities to the market through an organized effort (Veleva, 2020). Also, educational institutions play an important role in helping students to realize the importance of entrepreneurship as a career after graduation (Gull, Asghar & Aleem, 2021).

Entrepreneurs, as economic agents, have an important influence in the revival of an economy by promoting economic, technological, social and organizational development, they provide that in terms of job

creation, the transfer of technology from lab to market, increasing competitiveness and innovation and promoting social empowerment. Future nurses recognizes that even with multiple skills, they need to face new challenges, in the sense of exploring opportunities and seeing new areas of action.

The present study showed that there were a statistically significant differences among studied nursing students' overall knowledge of entrepreneurship at the three program phases (pre, immediately post and post one month later phases). The majority of them had unsatisfactory level of knowledge level at preprogram phase while they had satisfactory level of knowledge at immediately post and follow up phase. These results may be due to that, the nursing students didn't have any previous knowledge about entrepreneurship and were interested by the program content and motivated to learn about it. Moreover, the improvement may be due to simple, clear content, concise way of presentation and the availability of relevant

media that gave more illustration to understand the program content with frequent explanation beside motivating them to interact with the researcher during the program. Furthermore, the program content enhance nursing students' awareness toward the meaning and importance of entrepreneurship, generating business ideas, how to develop a simple business plan for a project and marketing plan component.

These result were supported by the finding of a study done by (Mohamd,2020) who found that, the entrepreneurship level of knowledge is higher in post program than preprogram. Also, the finding of a study done by(Boahemaah,2020) who reported that, the students have a positive attitude towards entrepreneurship after implementation of the training program and they develop plans to engage in entrepreneurial activities after graduation. On the other hand, these results were contradicted with the finding of a study done by (Vannucci & Weinstein,2017) who stated that, there was no significant improvement regarding nursing interns' knowledge level after attending the training program immediately post and at the follow-up phases of program compared with the preprogram phase.

The present study showed that, there were a statistically significant differences among studied nursing students over all entrepreneurial intention at the three program phases (pre, immediately post and post one month phase). More than half of nursing students had low level regarding overall entrepreneurial intention at preprogram phase, while they had high level at immediately post program and post one month phase. These findings may be related to that, the program sessions improved the students' entrepreneurial intention and their awareness about the importance of becoming entrepreneur rather than employee, put every effort to start their own business and trying more and more until they success and explained the challenges that facing them, this encourage them to improve themselves through employing their capabilities and exploring new opportunities to develop innovative ideas, so the students have the

desire to establish their own business and have a strong intention to start a business someday and be entrepreneur.

The current study result supported by the finding of a study done by (Ouragni & lakhal 2023) and (Rauf, Pratikto & Winarno 2022) who concluded that entrepreneurship education program had a positive significant impact on the entrepreneurial intentions of the study students. In addition (Ismail, 2020) concluded that the entrepreneurship orientation program affects the entrepreneurship intention positively, where study participant tend to favor the willingness to start a business and their professional goal become an entrepreneur. On the other hand, this result is contradicted with the finding of a study done by (Mohamed, 2020) who documented that there was insignificant statistical difference among participants regarding the entrepreneurial intention between the different data collection phases of the training program. Another study done by (Purwana, 2018) contradicted the current study result, who reported that the impact of entrepreneurship education program on entrepreneurial intention of the studied students was insignificant. Also the finding of a study done by (Yukongdi & Lopa 2017) who reported a negative effect of entrepreneurship training on participant studied entrepreneurial intention.

The results of the current study revealed that there were a statistically significant differences among studied nursing students related to overall entrepreneurial motivation at the three program phases, where near half of them had moderate level at preprogram phase, while it was improved to be high level immediately post program and post one month phase. These findings may be related to that, after the program the students learned the importance of earning money, saving and invest it to be financially secured having autonomy and personal freedom through taking independent decisions, managing their time and work tasks and to be recognized from family and community.

This study is supported by study done by **(Otache & Kadiri,2022)** who revealed that there was a significant increase in the students' entrepreneurial motivation after exposure to EE. Also, they mentioned that entrepreneurial motivation helps the students to develop strong desire to be independence, and their social status wealth and secure. Also another study done by **(Rahmi et al., 2022)** who concluded that there was a direct effect of entrepreneurship training on entrepreneurial motivation and the study participant want to achieve their: self-fulfillment, own work, financial needs and get the appreciation from family and society.

In addition, the finding of a study done by **(Ismail 2020)** who revealed that the motivation level of the participants was improved with significance difference between preprogram, post program and follow-up and this could motivate the young graduates to start their own private practice which had positive effects on their economic state and become financially secured. Another study done by **(Mahendra,2017)** who revealed that, effective entrepreneurship teaching received by students stimulate the growing of motivation and attitude as an essential learning feature for accomplishing entrepreneurial assignments. However the result of the current study finding was contradicted with a study done by **(Sarmiento 2016)** who revealed that, entrepreneurship program is not relevant in improving the motivation of the graduate students to become entrepreneurs.

The results of the current study revealed that there were a positive statistically significant correlation between nursing students entrepreneurship level of knowledge and entrepreneurial intention and motivation. From the perspective of the researcher these findings may be related to that, this is realistic as when the nursing students increase their entrepreneurship knowledge they will change their point of view, vision, feelings and attitude about this issue, improving knowledge about all things of entrepreneurship as: importance, opportunities, challenges and motivators of entrepreneurship, in addition the program helping the students to create a

business ideas as: home care, nurse blogger, medical product sales, nursery school, nurse staffing agency and recycling. Moreover, the program helping them to develop a business plan, to start their project and to develop a marketing plan to help them to identify how to market their products to achieve profits. In addition to allowing a role model of student in front of them to explain his experience in entrepreneurship field through explaining the steps about starting his project from nothing to actual business through having emotional and financial support from family to start his project. All this information improves students' entrepreneurial intention and motivation, this encourages them to achieve their goals of their future as: increase their income, improving their social position on their society, making their families proud of them success, maintaining financial security for their families, improving their prestige and status at their environment, and doing something good and contributing to the community development.

This study is supported by the finding of a study done by **(Mohamed,2023)** who concluded that, that there was a statistically significant difference improvement of nursing interns' motivation about entrepreneurship throughout immediately post and follow-up program phases. Another study done by **(Ismail,2020)** who concluded that entrepreneurial orientation program affects entrepreneurial motivation positively among participants. Also **(Ismail,2020)** concluded that entrepreneurship orientation program affects students' entrepreneurial intention positively. On the contrary the result of the current study is contradicted with the finding of a study done by **(purwana,2018)** who concluded that the impact of entrepreneurship education on students' entrepreneurial intention was insignificant.

The results of the current study revealed that there was a positive significant correlation between nursing students' entrepreneurial intention and entrepreneurial motivation. These findings may be related to that, students want to become entrepreneur rather than working in hospital, having strong intention to start their business someday,

working very hard to be entrepreneur and learning entrepreneurial skills as: goal setting, planning, information, opportunity seeking, risk taking, persuasion and self- confidence, all these motivating them to be entrepreneur to achieve their goals, taking independent decisions, maintain financial security, improve their prestige and status on their communities and making their families proud of their success.

This study is supported by the finding of a study done by (Nayak, Joshi & Gil 2023) who concluded that positive relationship between Entrepreneurial Intention (EI) and Entrepreneurial Motivation (EM), as the research suggested that highly motivated students had a strong intention to become entrepreneurs. Also this study is in line with a study done by (Eduward, Djatmika & Rahayu 2018) who concluded that there was positive significant relation between entrepreneurial intention and entrepreneurial motivation. In addition the finding of a study done by (Malepana,2014) who concluded that there was statistical significant correlations between entrepreneurial motivation and entrepreneurial intention.

Conclusion

In the light of the current study findings, it was concluded that, there was a positive statistical significance correlation between nursing students entrepreneurship knowledge and entrepreneurial intention and motivation and most of the selected study sample among 4th year nursing students had a satisfactory knowledge level about entrepreneurship during immediately post and follow up (after 1 month) program phases compared with pre-program phase and more than half of studied nursing students had low level regarding overall entrepreneurial intention at preprogram phase, but it is improved to be high level at immediately post program and post one month. While near half of studied nursing students had moderate level regarding overall entrepreneurial motivation at the preprogram phase, but it is improved to be high level immediately post program and post one-month phases.

Recommendations

Based on findings of the current study, the following recommendations were suggested:

-Adding a course about entrepreneurship and courses that serve entrepreneurship to the educational programs of different nursing faculties from undergraduate to doctoral program as financial management courses, marketing courses and business planning courses to help entrepreneurs in business development.

- Provide continuous workshops about entrepreneurship particularly in health care sector especially for internship nursing students and postgraduate.

- Raising awareness about nursing entrepreneurship through mass media.

- Developing a culture of entrepreneurship among health care sectors staff to improve entrepreneurship behavior among nursing care team.

- Providing more support to students through training, with more facilitations, consultations, and counseling available in the faculty.

- Encourage students to generate applicable commercial ideas.

-Establish sponsorship relationship that provides guidance and financial support to establish business.

- Consider personal and environmental factors that affect entrepreneurial motivation that help students to start their own business.

- Use this study as an idea to develop advice, generated from nursing students through a manual guideline and use it in the faculty entrepreneurship unit.

The faculty of nursing students should:

-Attend frequent training programs and workshops about entrepreneurship.

-Update their knowledge through continuous reading and searching on internet to improve their entrepreneurial skills and ideas.

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