

Assessment of Teachers' Knowledge, Practice and Attitude toward Inclusion System in Primary Schools

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Abstract

Background: Inclusion system refers to the size of an education system to provide the academic and behavioral sustenance needed for all students, regardless of their disability or difference as gender, ethnicity, location, language, to participate and succeed in the academic, social, and extra-curricular activities of the school alongside their lords. **Aim:** This study aimed to assess teachers' knowledge, practice and attitude toward inclusion system in primary schools. Study design: Descriptive research design was used in this study. **Sample:** Convenient sample included 200 teachers in primary school for inclusion system in Ismailia city. **Setting:** 48 governmental primary schools for inclusion system in Ismailia city. **Tools for data collection:** One tool, 1st tool Interview questionnaire included four parts, 1st part: Socio-demographic characteristic, 2nd part: Teachers' knowledge related to inclusion system, 3rd part: Teachers' reported practice, and 4th part: Attitude rating scale to assess teachers' attitudes toward students with disabilities. **Results:** 5.0 % of studied teacher had good total knowledge. While 89.0 % of them had unsatisfactory total reported practice, while, 13.0 % of them had positive total attitude. **Conclusion:** Most of the study teachers had poor total knowledge about the inclusion system, most of them had satisfactory total practice regarding inclusion system and majority of the studied sample had positive attitude about the inclusion system. There is a statistically significant relation between teachers' sociodemographic data and their total knowledge, total practice, total attitude regarding inclusion system. **Recommendations:** Designs health education program to teachers about inclusion system in primary schools.

Key words: Attitude, Inclusion System, Practice, Primary school and Teachers' Knowledge.

Introduction

An inclusion system refers to a set of practices, policies, and strategies aimed at creating an inclusive environment where everyone feels valued, respected, and supported. Inclusion systems can be implemented in various contexts, as workplaces, educational institutions, and communities. The goal is to ensure that teachers from diverse backgrounds and with different abilities have equal opportunities to participate, contribute, and thrive. Teachers should be made aware of the concept and importance of the inclusion system in education. This includes understanding the capacity of the education system to provide academic and behavioral support for all students to participate and succeed (Keles et al., 2024).^[15]

Inclusion education is the practice of educating students with and without disabilities together in the same classroom, offers numerous benefits for all students involved. Some benefits of inclusion education as develop meaningful friendships and relationships with peers of diverse abilities, access to the general curriculum and benefit

from peer role models for academic skills, promotes increased appreciation and acceptance of teachers differences, diversity, and respect for all students, set higher expectations for all students, fostering a culture of high achievement, encourages collaboration among school staff, including general education teachers, special education teachers, and support staff (**Demchenko et al., 2021**).^[12]

In low and lower-middle-income countries around the world in 2021, nearly 40% of children with disabilities are out of school at the primary level, and 55% are out of school at the lower secondary level. Ministry of Education in Egypt is responsible for offering 85% of primary school start to application of inclusion education in free education at all levels, and there have been efforts to increase accountability and autonomy in the education system. The implementation of inclusion education can vary across countries and even within different schools and districts. Factors as parental school choice, availability of resources, and support services can influence the level of inclusion in schools (**Saloviita, 2020**).^[21]

Teachers' knowledge about students with special education needs is an important aspect of inclusive education. Teachers have the responsibility of educating students with special needs, though little training in special education. It is crucial for teachers to have knowledge and understanding of various exceptionalities and effective teaching strategies to meet the diverse needs of students. Inclusive classrooms aim to provide strong learning opportunities for all students with disabilities. The involvement of special education teachers is crucial in designing the curriculum and providing classroom instruction. Teachers should be aware of special education laws and regulations to protect the rights of students (**Sailor et al., 2021**).^[20]

Practices for teachers regarding students with special education needs can vary based on various factors such as training, resources, and support available. That accommodate and modify their lessons to meet the needs of students with special needs. This may involve adapting teaching strategies, providing additional support, or using assistive technologies, collaboration between general education teachers and special education teachers (**Martino et al., 2022**).^[17]

Teacher attitude plays a pivotal role in the success of an inclusive education system, where students with diverse learning needs and abilities are integrated into mainstream classrooms. A positive, supportive, and proactive attitude from teachers can significantly enhance the learning experiences and outcomes of inclusion system students. Teachers who embrace inclusivity demonstrate patience, empathy, and flexibility, adapting their teaching methods to cater to the varied needs of all students. Teachers foster an inclusive classroom environment by promoting respect, understanding, and collaboration among students, which helps to reduce stigma and build a sense of community (**Schwab et al., 2024**).^[24]

Teachers work together to design and deliver instruction that meets the diverse needs of all students, expertise in social-emotional or behavioral supports play a crucial role in providing the necessary support to students with special needs and counseling, communication, and providing resources to parents. Teachers' attitudes towards students with special needs are influenced by variables such as experience, training, and perception of available resources and support. Greater experience in inclusive educational contexts tends to favor a more positive attitude towards the education of students with special needs (**Alam & Mohanty, 2023**).^[3]

The role of school health nurse is great importance in supporting the inclusion of students with disabilities. Nurses can play a vital role in promoting the overall health and well-being of these students. Conducting health assessments for inclusion students can help identify any specific healthcare needs or conditions that may require attention. Collaborate with the student's family, teachers, and other healthcare professionals to develop teaching health plans. Provide health education to inclusion students to help them understand and manage their own health needs. Work closely with teachers and staff to develop emergency response plans for inclusion students (**Savolainen et al., 2022**).^[22]

Significance of the Study

According to the Ministry of Education's 2014–2030 education strategic plan, students with special education needs includes not only learners with various forms of disabilities, but the talented and excelling students requiring special care. Over the last two decades, Egypt has shown significant interest in and support for inclusion system application, as evidenced by policy efforts, political discourse, and partial inclusion initiatives for student with mild disabilities. Following Egypt's endorsement of the "Convention on the Rights of Persons with Disabilities" (CRPD 2007), the Egyptian Ministry of Education (MOE) issued a Ministerial Degree in 2009, updated in 2015, mandating the admission of students with mild disabilities in public and private schools that are configured and prepared to receive those students, with the goal of preparing 5,040 schools suited for the inclusion of 152,000 students by 2012 (Baticulon et al., 2021).^[4]

The success of dealing with students with disabilities depends on the level of information, practices, and attitudes of teachers and improvement in teachers' practices and information has a positive role in improving the level of students and reducing their level of suffering in academic achievement, which improves their standard of life in general. Therefore, the current study aims to evaluate the effect of health educational program for teachers toward inclusion system in primary school (Scanlon et al., 2022).^[23]

Community health nurses (CHN), play a crucial role in supporting inclusion system students, ensuring that their health needs are met to facilitate effective learning and integration in mainstream educational settings. These nurses conduct comprehensive health assessments to identify any medical or developmental conditions that might affect a student's ability to learn and participate fully in school activities. CHN work closely with teachers, parents, and other healthcare providers to develop and implement individualized health plans that address the specific needs of inclusion system students (Tenback et al., 2024).^[27]

Aim of the study

This study aimed to assess teachers' knowledge, practice and attitude toward inclusion system in primary schools through the following:

1. Assessment of teachers' knowledge regarding inclusion system in primary schools.
 2. Appraising teachers' reported practices toward inclusion system in primary schools
- Evaluating teachers' attitude regarding inclusion system in primary schools.

Research Questions:

Q 1 –What is the teachers' knowledge regarding inclusion system?

Q 2 –what is the teachers' reported practices regarding inclusion system?

Q 3 –What is the teachers' attitude regarding inclusion system?

Subjects and Method

Research design:

Descriptive research design was used in this study.

Research setting:

This study was conducted at 48 governmental primary school which applied inclusion system in Ismailia city(Capital of Ismailia governorate), which found 14 primary schools in north Ismailia city as experimental media of languages (It contains six primary stages. Each stage contains two classrooms. The class capacity is about 60 students. It consists of five floors. On the first floor there are the offices of the administrators, the headmaster, the children's bathrooms, and a large playground, second floor contain about library and laboratory, and 3 classes. Third, fourth and fifth floor contain about classes(, peace evangelical special, Amon special, Al-Manar private school, Mustafa Al-Attar

private school, special mecca, sheikh Zayed private, October 24 Experimental languages for basic education, Al Nahda primary school, first district basic education school, Dohat Al-Zaman model school, Rabaa Al Adawiya primary school, Experimental detector of languages, and Al-Farouk Omar primary school and 34 primary schools in South Ismailia city, Al-Sabah primary school, Garden City Elementary School, Mount Maryam Primary School, Ali Mubarak Primary School, Al-Galaa Joint Primary School, Abu Bakr Al-Siddiq Primary School, Arab Unity Primary School, Bilal bin Rabah Primary School, Jamal al-Din al-Afghani School, Khaled bin Al-Walid Joint School, Rifaa Al-Tahtawi School, Salah Al-Din Al-Ayoubi School, Atef Barakat School, Abbas Mahmoud Al-Akkad School, Abdullah Al-Sharqawi School, Othman bin Affan School in New Samakin, Ali Abu Al-Qasim School, Ali bin Abu Talib School, Omar bin Al Khattab School, Omar bin Abdul Aziz School, Kamal Abu Al Majd Primary School, Mohamed Ezzat Adel School, Mustafa Kamal Primary School, Al-Jalaa Camp Primary School Nour Al Maaref Primary School, Al Hassan Primary School, Taba Primary School, Al-Ittihad Joint Primary School, Ismailia Sikaka Primary School, Ali Common Primary School, Crocodile Primary School, Al-Thawra Primary School, Al-Sayeda Aisha Primary School and Al-Shuhadaa Primary School.

Subjects:

Total number of teachers equal 200 teachers in primary school which applied inclusion system in Ismailia city.

Inclusion criteria:

All teachers prepared to teach in inclusion classroom and agree for participate in study.

Tools of data collection

The data were collected through using the following tool:

Tool (1): An interview questionnaire: it included Four parts:

Part I: Demographic characteristics of teachers consisted of 9 items as age, gender, marital status, monthly income, place of residence, level of education, duration of teaching experience,etc.

Part II: Teacher's knowledge about inclusion system included 13 closed end questions as:

Meaning of inclusion system, objectives of the inclusion system, types of inclusion system, spatial inclusion, social inclusion, factors that lead to the success of the inclusion, disadvantages of the inclusion process, benefits of the inclusion process,etc.

Scoring system, it included 18 questions; the answer score 2 point for correct answer and complete, 1 point for correct answer and not complete and zero point to wrong or no answer .

The total scores for teacher's knowledge 36 points regarding inclusion system divided into three levels as the following :

- Poor knowledge < 50 % (< 18 score)
- Average knowledge 50 -70 % (18:27 score)
- Good knowledge > 70% (> 27 score).

Part III: Teacher's reported practice questionnaires: The scale is constituted of questions and divided into 8 sub items such as:

1 -Flexible grouping included 4 closed ended questions as: Students are distributed into small groups, the student sits alone,etc.

2 -Classroom responsiveness included 5 closed ended questions as: There is rule creation, teacher uses yelling/negative comments. ("Just forget it and sit down!"), teacher uses encouraging comments.....etc.

3 -Curriculum, instruction & assessment included 6 closed ended questions as: Teachers incorporate visual, tactile and kinesthetic materials and activities to meet a variety of learners' needs, teachers use class-wide routines and procedures to support classroom management.....etc.

4 -Attention to children included 4 closed ended questions as: Listening to him and not rushing to speak, give the child your attention and listen to him even if you do not understand everything,etc.

5 -Specifications of the classroom and the place of the hyperactive student in the classroom included 8 closed ended questions as: The student sits in a place away from noise and influences that may distract the student, such as sitting next to the door or window, or next to the air conditioner, the student sits at the beginning of the class so as not to be distracted by the movements of his classmates,etc.

6 -Maintaining the attention of a hyperactive student included 10 closed ended questions as: Providing a safe atmosphere for the student inside the classroom, such as study chairs that provide a comfortable session for the student so that he is not preoccupied with any source of tension, encouraging the child for any effort he makes, even with a smile or a word of encouragement when he finishes his work as a reward, divide tasks from large tasks into small tasks, help the student if he needs help,etc.

7 -Dealing with the undesirable behavior of a hyperactive student included 7 closed end questions as: Overcoming minor mistakes such as hand movement, not paying attention to trivial matters, and focusing on major problems, always occupy the student so that he does not have the opportunity to create obstacles and riots in the classroom,etc.

8 -Effective mentioned practices with Asperger syndrome included 10 closed end questions as: Protect the student from ridicule and harm by other students, educating other students about what Asperger's disease is and that it is a problem that requires everyone's help for the injured student. The cooperative students should also be praised and encouraged to continue providing support to this student,etc.

Scoring system: it included 58 questions; 2 points for done, 1 point for sometimes answer and zero point to not done answer.

The total score of teachers 116 points reported practices about inclusion system classified into two levels :

- Satisfactory practices $\geq 60\%$ (≥ 70 point) .
- Unsatisfactory practices $< 60\%$ (< 70 point).

Part (IV): Attitude Rating Scale: It included 2 subitems:

A- It adopted from Sokolowski, K., (1998) and used to assess teachers' attitudes toward students with disabilities included 25 closed ended questions as: Students with disabilities make every effort to complete their assignments, inclusion of students with disabilities requires a large number of teachers, ...etc.

B- It adopted from Institute of Special Education Studies, (2009) and used to assess teachers' attitude towards inclusion system application as Classroom behavior of the student with a disability generally included 13 closed ended questions as: All students should be educated in regular class, some students' disabilities are an obstacle to achieving academic improvement in the inclusion system, inclusive education is likely to have a positive effect on the social and emotional development of students with disabilities,etc.

Scoring system: The total score of teacher 38 points teachers' attitude about autism classified into two level

The answers scored as 2 points for agree answer, 1 point for neutral answer and zero point to disagree answer.

The total score of teachers 76 points for attitude about inclusion system classified into two levels:

- Negative attitude $\geq 50\%$ (≥ 38 point).
- Positive attitude $< 50\%$ (< 38 point).

Validity:

The revision of the tool for clarity, relevance, comprehensiveness, understanding and applicability was done by a panel of five experts from the community health nursing specialty Helwan and El-Minya universities to measure the content validity of the tools and the necessary modification done accordingly through add some question to assess the teacher's knowledge about inclusion system. All recommended modifications were applied.

Reliability

Reliability was applied for testing the internal consistency of the tool, by administration of the same tools to the same subjects under similar conditions two times. Answers from the repeated testing were compared (Test- re- test reliability was 0.82 for knowledge), Cronbach's Alpha reliability was 0.890 for reported practices and 0.778 for attitude.

Ethical considerations:

An official permission to conduct the proposed study obtained from the Scientific Research Ethics Committee, faculty of nursing, Helwan university Participation in the study is voluntary and the informed consent and acceptance of director of governmental primary school which applied inclusion system in Ismailia city. The ethical considerations include explaining the purpose and nature of the study, stating the possibility to withdraw at any time, confidentiality of the information where it was not be accessed by any other party without taking permission of the participants. Ethics, values, culture and beliefs respected. Subjects given complete full information about the study and their role before signing.

Pilot study:

The pilot study done on 10 % of the sample equal 20 teachers to examine the clarity of questions and time needed to complete the study tools. Teachers in the pilot study were included in the main study sample because no modifications were done.

Fieldwork

A written approval letter obtained from the Dean of faculty of nursing, Helwan University for practice the study in the faculty of nursing. Written letter should be sent to the directorate of education and director of governmental primary school which applied inclusion system in Ismailia city for conducting the study including the aim of the study to obtain the permission to visit the school and conduct the study, including the aim of the study, obtained from teachers after the investigators introduces her for them and after explaining the purpose of the study.

The investigators collected data 2 day per week, (Tuesday and Wednesday) to identify the number of teachers who are attend to school. Then, teachers who matched the inclusion criteria and were willing to participate in the study were interviewed; teachers' formal acceptance to be included in the study was obtained, after explaining the purpose and the nature of the study.

The interviewing questionnaire collected about 40 minutes according to teachers' tolerance and every teacher was allowed to ask any question to clear any misunderstanding and to fill out the interviewing questionnaire. Regarding this sheet, every interview questionnaire was given to the teachers at the beginning of the work after explanation of the purpose of this sheet and gave them time to answer these questions.

Statistical analysis:

Upon completion of data collection, data computed and analyzed using Statistical Package for the Social Science (SPSS), version 24 for analysis. The P value set at 0.05. Descriptive statistics tests as numbers, percentage, mean standard deviation (SD), will be used to describe the results. Appropriate inferential statistics such as “F” test or “t” test used as well.

- Degrees of Significance of the results were:
- Non-significant (NS) if $p > 0.05$.
- Significant (S) if $p < 0.05$.
- Highly significant (HS) if $p < 0.01$.

Results

Table 1 shows that the mean age of studied teachers was 32.4 ± 7.8 years & 77.5 % of studied teachers was male. Also, 82.5% of the studied teachers had bachelor’s in education level. Moreover 100.0 % of the studied teachers were residents in urban. Additionally, 71.00 % of the studied teacher’s years of extensive experience in teaching were from five to ten years, and 47.5 % of the studied teacher’s years of extensive experience in the inclusion classes from 1 > 3 years. 79.00 % of the studied teachers took training courses on how to deal within the inclusion classes.

Table 2 Shows that, there was no statistically significant relation between studied teacher’s total knowledge about inclusion system pre- health educational program with level of education and age. Moreover, there was no statistically significant relation between studied teacher’s total knowledge about inclusion system pre- health educational program with their age and level of education where p value = 0.005 respectively

Table 3 Shows that there was no statistically significant relation between studied teacher’s total attitude about inclusion system pre - health educational program with level of education and age where p value = 0.001. Moreover, there was no statistically significant relation between studied teacher’s total attitude about inclusion system pre - health educational program with their age and level of education where p value = 0.005.

Table 4 shows that there was no statistically significant relation between studied sample’s total reported practice about inclusion system pre- educational program with educational level and age where p value = 0.001. Moreover, there was no statistically significant relation between studied sample’s total reported practice about inclusion system post- educational program with their age and educational level where p value = 0.005

Fig. 1 reveals that, 5.0 % of studied teacher had good total knowledge. While 32.0 % of studied teacher had average total knowledge. While 63.0 % of studied teacher had poor total knowledge where P value 0.000 and paired t test = 29.54.

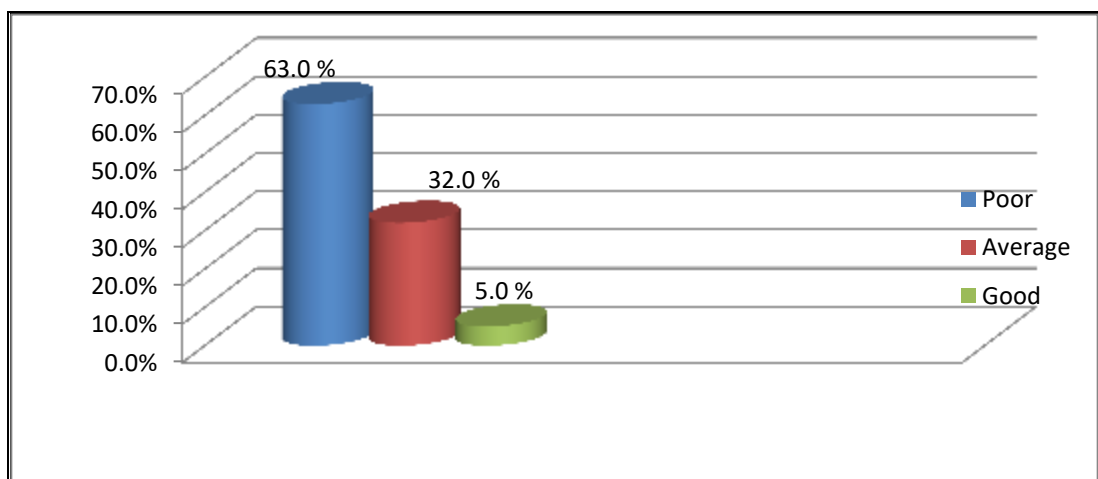
Fig. 2 Illustrate that, 89.0 % of studied teachers had unsatisfactory with total reported practice. While 11.0 % of them had satisfactory total reported practice where P value 0.000 and paired t test =24.9.

Fig. 3 Percentage distribution of Total Attitude among Studied Teacher regarding Attitude toward Inclusion System (N=200).

Table (1): Frequency Distribution of the Studied Teacher’s demographic Characteristics (N=200).

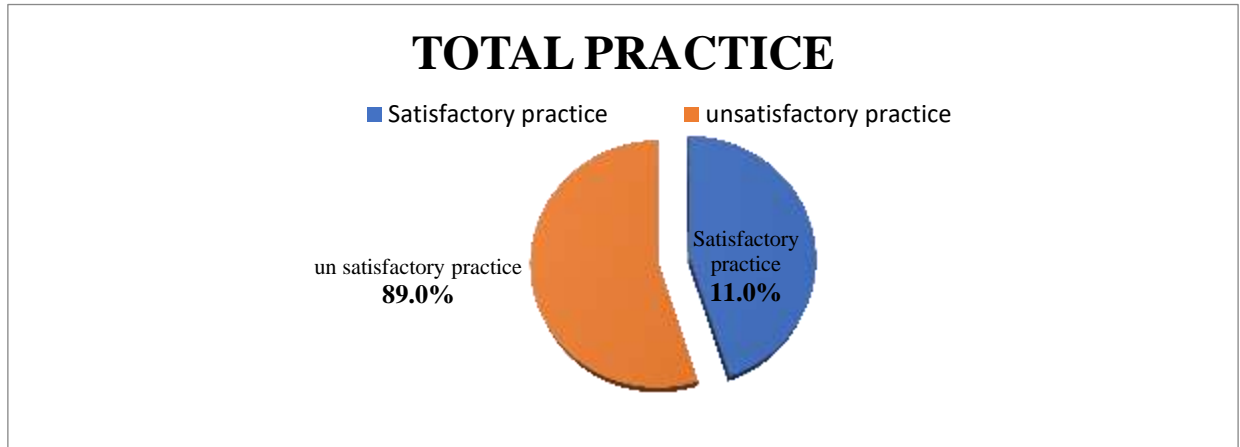
Item	No.	%
Age		
25 -30 years	20	10.00
31 - 35 years	128	64.00
36 - 40 years	10	5.00
More than 41 years	42	21.00
Mean \pm SD	32.4 \pm 7.8 years	
Gender		
Male	155	77.5
Female	45	22.5

Marital status		
Single	18	9.00
Married	162	81.00
Divorced	8	4.00
Widow	12	6.00
Place of residence		
Urban	200	100.0
Monthly Income		
Sufficient and saving	24	12.00
Not sufficient for basic needs	122	61.00
Suffices basic needs	54	27.00
Level of education		
Diploma Teachers	30	15.0
Bachelor	165	82.5
Postgraduate	5	2.50
Years of extensive experience in teaching		
Less than one year	9	4.50
From one to five years	39	19.50
Five to ten years	142	71.00
More than ten years	10	5.00
Years of experience in the inclusion classes		
>1 years	24	12.00
1> 3 years	95	47.5
≤ 3 years	81	40.5
Training courses on how to deal within the inclusion classes		
Yes	158	79.00
No	42	21.00



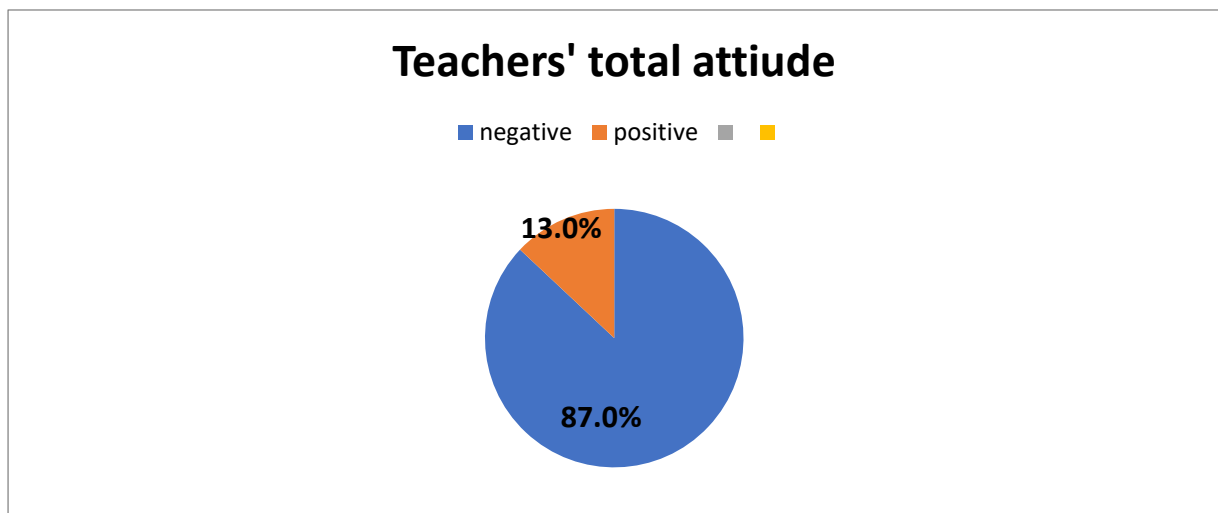
**** $\chi^2=29.54$ **P value=0.000**

Figure (1): Percentage Distribution of Total Knowledge among Studied Teacher regarding Inclusion System (N=200).



**** $\chi^2=24.9$ **P value=0.000**

Figure (2): Percentage Distribution of Total Reported Practices among Studied Teacher regarding Effective Instruction in Inclusion System (N=200)



**** $\chi^2=30.7$ **P value=0.000**

Figure (3): Percentage distribution of Total Attitude among Studied Teacher regarding Attitude toward Inclusion System (N=200).

Table (2): Relation between Demographic Characteristics and Total Knowledge of Studied Teacher (N=200).

Items	The studied teacher						χ^2	P value
	Poor N=126		Average N=64		Good N=10			
	No.	%	No.	%	No.	%		
*Teachers age								
25 -30 years	20	15.9	0	0.0	0	0.0	7.255	0.000
31 - 35 years	75	59.5	43	67.2	10	100.0	8.023	0.000
36 - 40 years	0	0.0	10	15.6	0	0.0	7.225	0.001

More than 41 years	31	24.6	11	17.2	0	0.0	8.225	0.005
*Gender								
Male	100	79.4	45	70.3	10	100.0	6.325	0.002
Female	26	20.6	19	29.7	0	0.0	8.256	0.005
* Marital status								
Single	18	14.3	0	0.0	0	0.0	6.321	0.005
Married	100	79.4	60	93.8	2	20.0	8.147	0.000
Divorced	0	0.0	0	0.0	8	80.0	6.002	0.000
Widow	8	6.3	4	6.2	0	0.0	4.258	0.001
* Place of residence								
Urban	126	100.0	64	100.0	10	100.0	5.214	0.002
* Level of education								
Diploma Teachers	0	0.0	30	46.9	0	0.0	6.325	0.002
Bachelor	121	96.0	34	53.1	10	100.0	4.258	0.001
Postgraduate	5	4.0	0	0.0	0	0.0	7.102	0.000
* Years of extensive experience in teaching								
Less than one year	6	4.8	3	4.7	0	0.0	9.321	0.00 ^o
From one to five years	0	0.0	39	60.9	0	0.0	8.012	0.00 ^o
Five to ten years	120	95.2	22	34.4	0	0.0	8.002	0.001
More than ten years	0	0.0	0	0.0	10	100.0	7.145	0.000
*Years of experience in the inclusion classes								
>1 years	15	11.9	5	7.8	4	40.0	8.712	0.00 ^o
1> 3 years	40	31.7	50	78.1	5	50.0	7.369	0.000
≤ 3 years	71	56.4	9	14.1	1	10.0	10.258	0.000
*Training courses on how to deal within the inclusion classes								
Yes	100	79.4	50	78.1	8	80.0	8.025	0.000
No	26	29.6	14	29.9	2	20.0	6.325	0.000

Table (3): Relation between Demographic Characteristics and Total Attitude of Studied Teacher (N=200).

Items	The studied teacher				χ^2	P value
	Pre -Educational Program					
	Negative N=174		Positive N=26			
	No.	%	No.	%		
*Teachers age						
25 -30 years	17	9.8	3	11.5	5.255	0.000
31 - 35 years	119	68.4	9	34.6	7.023	0.000
36 - 40 years	8	4.6	2	7.7	11.225	0.001
More than 41 years	30	17.2	12	46.2	9.225	0.005
* Gender						
Male	130	74.7	25	96.2	7.325	0.002
Female	44	25.3	1	3.8	8.256	0.005
* Marital status						
Single	11	6.3	7	26.9	6.321	0.005

Married	151	86.8	11	42.3	8.147	0.000
Divorced	5	2.9	3	11.5	8.247	0.000
Widow	7	4.0	5	19.2	8.112	0.000
* Place of residence						
Urban	174	100.0	26	100.0	5.214	0.002
* Level of education						
Diploma Teachers	17	9.8	13	50.0	6.325	0.002
Bachelor	154	88.5	11	42.3	4.258	0.001
Postgraduate	3	1.7	2	7.7	7.102	0.000
* Years of extensive experience in teaching						
Less than one year	7	4.0	2	7.7	9.321	0.00*
From one to five years	20	11.5	19	73.1	8.012	0.00*
Five to ten years	141	81.0	1	3.8	7.001	0.001
More than ten years	6	3.4	4	15.4	5.225	0.005
*Years of experience in the inclusion classes						
>1 years	18	10.3	6	23.0	12.020	0.002
1> 3 years	85	48.9	10	38.5	10.235	0.005
≤ 3 years	71	40.8	10	38.5	16.325	0.005
*Training courses on how to deal within the inclusion classes						
Yes	138	79.3	20	76.9	3.025	0.002
No	36	20.7	6	23.1	6.012	0.00 [^]

Table (4): Relation between Demographic Characteristics and Total Reported Practice of Studied Teacher (N=200).

Items	The studied teacher				χ^2	P value
	Pre -Educational Program					
	Un satisfactory N=178		Satisfactory N=22			
	No.	%	No.	%		
*Teachers age						
25 -30 years	12	6.7	8	36.4	9.255	0.000
31 - 35 years	120	67.4	8	36.4	11.023	0.000
36 - 40 years	6	3.4	4	18.2	9.225	0.001
More than 41 years	40	22.5	2	9.0	10.225	0.005
* Gender						
Male	148	83.1	7	31.8	12.325	0.002
Female	30	16.9	15	68.2	15.256	0.005
* Marital status						
Single	12	6.7	6	27.3	14.321	0.005
Married	150	84.3	12	54.5	18.147	0.000
Divorced	7	3.9	1	4.5	15.214	0.002
Widow	9	5.1	3	13.6	16.258	0.001
* Place of residence						
Urban	178	100.0	22	100.0	14.214	0.002
* Level of education						

Diploma Teachers	25	14.0	5	22.7	9.325	0.002
Bachelor	148	83.1	17	77.3	14.258	0.001
Postgraduate	5	2.9	0	0.00	17.102	0.000
* Years of extensive experience in teaching						
Less than one year	5	2.8	4	18.2	9.321	0.00*
From one to five years	29	16.3	10	45.5	8.012	0.00*
Five to ten years	134	75.3	8	36.4	7.001	0.001
More than ten years	10	5.6	0	0.00	5.225	0.005
*Years of experience in the inclusion classes						
>1 years	20	11.2	4	18.2	17.020	0.002
1> 3 years	87	48.9	8	36.4	13.235	0.005
≤ 3 years	71	2939	10	45.5	19.325	0.005
*Training courses on how to deal within the inclusion classes						
Yes	158	88.8	0	0.00	13.025	0.002
No	20	11.2	22	100.0	11.012	0.00\

Discussion

An inclusive education system is one where every student is allowed to study in one class. It is a place where students are not divided based on their disability. Every student is equal when it comes to learning. Having all kinds of children in one classroom is the idea behind inclusive education. The education system has different institutions for children of differing abilities (Aasland & Fløtten, 2020) [1]. Schools for disabled students as well as for those with mental health conditions are also present. It means that schools have divided the type of learning offered to different students. In the 1990s, students with disabilities were sent to separate schools, and these schools were later called the disabled institutes (Song & Gordon, 2020) [26].

One of the most important roles that an inclusion teacher plays in a diverse classroom is identifying their students properly. The teachers identify their special students' social, emotional, behavioral, physical, and academic strengths. Teachers consult the students' parents or guardians to get more information about their needs (Ainscow et al., 2022) [2]. The teachers create education plans and proper accommodations based on this information. For instance, a visually impaired student would require course material in larger print, or another student might need preferential seating based on their ability to focus in the classroom. Similarly, teachers provide varied levels of classroom assistance to the students to learn without feeling overwhelmed (Sethna & Shah, 2022) [25].

Concerning to studied teacher's sex, the present revealed that more than two third of studied sample were male and this finding was similar with Berg (2022) [5] who conducted published study at Australia under title of " From Structural Dilemmas to Institutional Imperatives: A Descriptive Theory of the School as an Institution and of School Organizations " reported that 78.1 % of studied subjects were males.

Concerning to studied teacher's age, less than two third of studied sample had 31 to 35 years, and this finding was in agreement with Berger & Luckmann, (2022) [6] who conducted published study at Penguin United Kingdom (UK) entitled as " The Social Construction of Reality: A Treatise in the Sociology of Knowledge. " Reported that 63.2 % of studied subjects were 20 to 21 years. From investigators point view, this might be due to Being a young teacher, or even looking like a young teacher, is a shared experience amongst many in the profession. The Organization for Economic Cooperation and Development (OECD) defines a young teacher as those under 40 years old.

Concerning to studied teacher's marital status and place of resident the present study revealed that more than two third were married and all studied teacher's place of residence was urban. This result was in accordance with Burner et al., (2023) [7] who conducted published study at Palestine entitled as " Critical Perspectives on Perceptions and Practices of Diversity in Education the West Bank, Palestine" reported that 81.3 % and 100 % of studied subjects were married and all studied sample's place of residence was urban, respectively. From investigators point view, this might be due to the government raises teacher awareness towards student with special needs, how to provide them

with all means with the support of the state and towns and cities appeal to people for a lot of reasons through improved public transport, a mix of cultures, job opportunities and easy access to shops and amenities.

Concerning to studied teacher's level of education, the present study revealed that, more than two third of studied teacher's had bachelor this finding was similar **with Carrington et al., (2020)** .^[8] who conducted a published study at Vietnam entitled as " "What Universal Design for Learning Principles, Guidelines, and Checkpoints are Evident in Educators' Descriptions of Their Practice When Supporting Students on Inclusion System?" in Southeast Asia in Vietnam " conducted cross-sectional study directed among the teachers on inclusion system in Vietnam and founded that 83.2 % participants had level of education was bachelor. From investigators point view, this might be due to bachelor's degree is the most common level of education achieved by those in careers related to grade specific

Concerning to studied teacher's monthly income of the present study revealed that less than two third of studied teacher had not sufficient for basic needs and this finding was in **agreement with Caspersen et al., (2021)** ^[9] who conducted a published study at Kaduna State in Nigeria entitled as " Measuring Learning Outcomes. Kaduna State, Nigeria. " Stated that 62.1 % of studied subjects were not sufficient for basic needs. From investigators ' point of view, this might be due to increase in prices and the large number of basic needs for people with special needs and the large number of requirements.

Regarding to studied teacher's years of experience in teaching, present study finding revealed that more than two third of studied teachers were years of experience in teaching from five to ten years. This result was in accordance **with Danforth & Rhodes, (2022)** .^[10] who conducted published study at Northwest Ethiopia entitled as "Deconstructing Disability: A Philosophy for Inclusion, Northwest Ethiopia" reported that 72.5 % of studied subjects were years of extensive experience in teaching from five to ten years. From investigators point view, this might be due to giving equal access and opportunities and getting rid of discrimination and intolerance (removal of barriers). It affects all aspects of public life.

Regarding to studied teacher's taking a training course on how to deal within the inclusion classes, present study finding revealed that, more than two third of studied teachers were taking a training course on how to deal within the inclusion classes, this result was in accordance with **Devarakonda & Powlay, (2020)**,^[13] who conducted published study at London entitled as " "Diversity and Inclusion." In A Guide to Early Years and Primary Teaching" reported that 76.2 % of studied subjects taking a training course on how to deal within the inclusion classes. From investigators point view, this might be due to training on inclusive practices for teaches about how to create environments where all students feel safe and can thrive, and how to work with each other in a way that helps everyone achieve more positive outcomes through increased staff confidence and attitudes in working with diverse students.

The following paragraphs answered research question Q1: What is the teachers' knowledge regarding inclusion system^g

Concerning assessment of studied teacher's knowledge, the present study shows statistically significant relationship between age and sex, but this finding was disagreement **Rao & Landa (2020)**,^[19] who conducted published study in Rural China under title of " Association between severity of behavioral phenotype and comorbid attention deficit hyperactivity disorder symptoms in children with autism spectrum disorders in Rural China " reported that, there significant and positive correlation relationship between total age and sex. From investigators point view might be high difference age of studied subjects collected from age 15 > -30 years, while all studied subjects of the current study 20 :21 years and neurological health affected with age change. From investigators point view, this might be due to establish systems for teachers to receive constructive feedback on their teaching methods and knowledge. This can include peer reviews, student evaluations, and observations by experienced educators.

The following paragraph answered research question Q2: What is the teachers' reported practices regarding inclusion system^g

At the same point, there no significant improvement between mean scores of total reported practices for studied teachers and this finding was in agreement with **Punshon et al., (2021)** .^[18] who conducted published study at Europe under title" The "not guilty verdict": Psychological reactions to a diagnosis of Asperger syndrome in adulthood "who described that average of Nurses' score of studied subjects. From investigators point view, this might be due to conduct a thorough assessment to identify specific areas where practices are lacking. This can involve classroom observations, student feedback, and performance evaluations.

The following paragraph answered research question Q3: What is the teachers' attitude regarding inclusion system

Regarding that, there significant improvement between mean scores of total attitudes for studied teachers and this finding was in agreement with **Glasson et al., (2022)** ^[14] who conducted published study at Europe under title "Perinatal factors and the development of autism on European Union "who described that average of Nurses' score of studied subjects. From investigators point view, this might be due to provide access to counseling services for teachers who may be dealing with personal or professional issues that affect their attitude. Support systems can help teachers manage stress and improve their outlook. Start by having open and honest conversations with the teachers involved. Understanding their perspectives and concerns can help identify the root causes of their poor attitude.

Regarding relationship between total knowledge and teacher's demographic characteristics, the present study showed no significant relation between them and this finding was in agreement with **Dardennes et al., (2021)** ^[11] who published study at Argentine under title "Treating the cause of illness rather than the symptoms: Parental causal beliefs and treatment choices in autism spectrum disorder", who reported that, statically significant relation between total knowledge and child's demographic characteristics post apply health education program. In addition, this finding in accordance with **Laurence, (2023)**, ^[16] who published study at Britain and London under title "Wider-community Segregation and the Effect of Neighborhood Ethnic Diversity on Social Capital: An Investigation into Intra-Neighborhood Trust in Great Britain and London" who reported significant relation between total knowledge level among the studied subjects and demographic characteristics.

Conclusion

On the light of the current Study, it could be concluded that:

Regarding to teachers' knowledge, less two third of the studied teachers had poor knowledge about inclusion system. Also, less one third of the studied teachers had average knowledge about the inclusion system. While less than quarter of the studied teachers had good knowledge about inclusion system. Regarding to teachers' practices, majority of the studied teachers had a satisfactory level in total teachers' practices. While less than quarter of them had unsatisfactory total teachers' reported practices. Regarding to teachers' attitude, minority of the studied teachers had negative total attitude about inclusion system. While majority of the studied teachers had positive total attitude about inclusion system. There was statistically significant relation between teachers' sociodemographic data and their total knowledge, total reported practices and total attitude regarding inclusion system for primary school.

Recommendations

In the light of findings of the present study, the following recommendations are suggested:

- 1- Provide health education program for teachers about inclusion system.
- 2- Design booklets for teachers about inclusion system which include the sign and symptoms, side effects of neglect the inclusion system.
- 3- Design posters and put in primary schools for inclusion system that would help teachers to improve knowledge, reported practices and attitude regarding inclusion system.

References

- 1- **Aasland, A., and T. Fløtten. (2020).** "Ethnicity and Social Exclusion in Estonia and Latvia." *Europe-Asia Studies* 53 (7): 1023–1049.
- 2- **Ainscow, M., R. Slee, and M. Best. (2022).** "The Salamanca Statement: 25 Years on." *International Journal of Inclusive Education* 23 (7-8): 671–676.
- 3- **Alam, A., & Mohanty, A. (2023).** Cultural beliefs and equity in educational institutions: exploring the social and philosophical notions of ability groupings in teaching and learning of mathematics. *International Journal of Adolescence and Youth*, 28(1), 2270662.
- 4- **Baticulon, R. E., Sy, J. J., Alberto, N. R. I., Baron, M. B. C., Mabulay, R. E. C., 2021:** Barriers to online learning in the time: A national survey of medical students in the Philippines. *Med. Sci. Educ.* 31, 615–626.
- 5- **Berg, G. (2022).** "From Structural Dilemmas to Institutional Imperatives: A Descriptive Theory of the School as an Institution and of School Organizations." *Journal of Curriculum Studies* 39 (5): 577–596.
- 6- **Berger, P. L., and T. Luckmann. (2022).** *The Social Construction of Reality: A Treatise in the Sociology of Knowledge.* Penguin UK.
- 7- **Burner, T., T. S. Nodeland, and Å Aamaas. (2023).** *Critical Perspectives on Perceptions and Practices of Diversity in Education.*
- 8- **Carrington, S., B. Siggers, A. Webster, K. Harper-Hill, and J. Nickerson. (2020).** "What Universal Design for Learning Principles, Guidelines, and Checkpoints are Evident in Educators' Descriptions of Their Practice When Supporting Students on Inclusion System?" *International Journal of Educational Research* 102: 101583.



- 9- Caspersen, J., J. C. Smeby, and P. Olaf Aamodt. (2021) "Measuring Learning Outcomes." *European Journal of Education* 52 (1): 20–30.
- 10- Danforth, S., and W. C. Rhodes. (2022). "Deconstructing Disability: A Philosophy for Inclusion." *Remedial and Special Education* 18 (6): 357–366.
- 11- Dardennes RM, Al Anbar NN, Prado-Netto A, Kaye K, Contejean Y, Al Anbar NN (2021). Treating the cause of illness rather than the symptoms: Parental causal beliefs and treatment choices in autism spectrum disorder. *Res Dev Disabil.* 2021;132(3):1137-1146.
- 12- Demchenko, I., Maksymchuk, B., Bilan, V., Maksymchuk, I., & Kalynovska, I. (2021). Training future physical education teachers for professional activities under the conditions of inclusive education. *BRAIN. Broad Research in Artificial Intelligence and Neuroscience*, 12(3), 191-213.
- 13- Devarakonda, C., and L. Powlay. (2020). "Diversity and Inclusion." In *A Guide to Early Years and Primary Teaching*, edited by D Wyse and S Rogers, 185–204. London: Sage.
- 14- Glasson EJ, Bower C, Petterson B, de Klerk N, Chaney G, Hallmayer JF (2022). Perinatal factors and the development of autism: A population study. *Arch of General Psychiatry.* 2022;61(6):618-627.
- 15- Keles, S., Ten Braak, D., & Munthe, E. (2024). Inclusion of students with special education needs in Nordic countries: a systematic scoping review. *Scandinavian Journal of Educational Research*, 68(3), 431-446.
- 16- Laurence-Chasen, J. D., Ross, C. F., Arce-McShane, F. I., & Hatsopoulos, N. G. (2023). Robust cortical encoding of 3D tongue shape during feeding in macaques. *Nature Communications*, 14(1), 2991.
- 17- Martino, W., Kassen, J., & Omercajic, K. (2022). Supporting transgender students in schools: Beyond a teacherist approach to trans inclusion in the education system. *Educational Review*, 74(4), 753-772.
- 18- Punshon, C., Skirrow, P., & Murphy, G. (2021). The "not guilty verdict": Psychological reactions to a diagnosis of Asperger syndrome in adulthood. *Autism*, 13, 265–283.
- 19- Rao PA, Landa RJ (2020). Association between severity of behavioral phenotype and comorbid attention deficit hyperactivity disorder symptoms in children with autism spectrum disorders. *Autism.* 2020;18(3):272-280.
- 20- Sailor, W., Skrtic, T. M., Cohn, M., & Olmstead, C. (2021). Preparing teacher educators for statewide scale-up of multi-tiered system of support (MTSS). *Teacher Education and Special Education*, 44(1), 24-41.
- 21- Saloviita, T. (2020). Teacher attitudes towards the inclusion of students with support needs. *Journal of Research in Special Educational Needs*, 20(1), 64-73.
- 22- Savolainen, H., Malinen, O. P., & Schwab, S. (2022). Teacher efficacy predicts teachers' attitudes towards inclusion—a longitudinal cross-lagged analysis. *International journal of inclusive education*, 26(9), 958-972.
- 23- Scanlon, G., Radeva, S., Pitsia, V., Maguire, C., & Nikolaeva, S. (2022). Attitudes of teachers in Bulgarian kindergartens towards inclusive education. *Teaching and Teacher Education*, 112, 103650.
- 24- Schwab, S., Resch, K., & Alnahdi, G. (2024). Inclusion does not solely apply to students with disabilities: Pre-service teachers' attitudes towards inclusive schooling of all students. *International Journal of Inclusive Education*, 28(2), 214-230.
- 25- Sethna, S.M.; Shah, N.M (2022). The Chemistry of Coumadin's Chem. Rev. 1945, 36, 1–62.
- 26- Song, M., & Gordon, S. (2020). Stochastic conformal schemes for damped stochastic Klein-Gordon equation with additive noise. *Journal of Computational Physics*, 411, 109300.
- 27- Tenback, C., de Boer, A., & Bijstra, J. (2024). The attitudes of teaching staff in specialised education towards inclusion and integration. *British Journal of Special Education*.