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Research Article

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Delivering Integrated Health Care: Role and Importance of Multidisciplinary Team Clinic

Dr. Rawaa Y. Al-Rawee[1], Dr. Reem Yaseen Shehab Barhawi[2], Dr. Waleed Mohammed Bashir Alsabee[3], Dr. Marab Younis Al-Fathy[4]

Corresponding Author: Dr. Rawaa Y. Al-Rawee

[1]Department of Oral and Maxillofacial Surgery, Al-Salam Teaching Hospital, Nineveh Health Directorate Mosul, Iraq
[2]Al-Khansaa Teaching Hospital, Nineveh Health Directorate
[3,4]Training and Human Development Center, Nineveh Health Directorate.

Abstract

Aim: To evaluate and assess the knowledge of specialist regardless to ther speciality about the Multidisplinary Team Clinic and highlighting the benefit, obstcals and management information in Nineveh Province as t pass through many political circumstances.

Material and Method: A cross-sectional study was conducted between August to November 2021 among specialist working in Nineveh Health Directorate. Sample size was intended according to the established role 10% from the total number of each group and even more. The minimum calculated sample size was (242) participants. Doctors (161), Pharmacists (28), and Dentists (53). Questioners focus on demographical informations, knowledge of specialized doctors about MDT Clinics, benefit, obstacles and management information.

Result: Specialist have good knowledge, and informations about the benefitwith the obstcals, for correlation and signifacncy, correlation is significant at the 0.01 level (2-tailed) through spearman test. Most of answers show significant relations.

Conclusion: MDT has advantages for all institutions, patients, and medical professionals. The major objective of MDT is to provide all patients with high-quality, specialized medical care while advancing knowledge among MDT members.

Key Wards: Health Care, Multidiscplinary Team, Multidiscplinary Clinic, Cross Sectional Study, Health Care Workers. Knowledge for MDT, Integrated Care.

Introduction

A multidisciplinary Team (MDT) is a" professionals team including representatives of different disciplines who coordinate the contributions of each profession, which are not considered to overlap, to improve patient care"[1]. Health professionals and practitioners are enabled to cooperate through MDT positively. Researches propose that MDT are highly valuable at different

levels (organization, health care professionals, and patients) [2].

The Social Care Institute for Excellence (SCIE's) defines integrated care as "a core desire of what good integrated care looks like. Sufficient diversity of professions and disciplines, suitable leadership and team dynamics, and supportive organizations are important enablers." It requires experts and professionals from diveres branches to collaberate with each others to improve individual, family, and community health. On the contrary, not functioning collectively ends with poor care experience and resource wasting and might result in people suffering harm. Based on that, the authors in this study like to highlight the role and importance of the MDT clinic in delivering integrated health care [3].

MDTs will achieve a different common set of aspirations about what MDTs will succeed in regardless of the populace or need. Taberna M etal in 2020, publish an article about the MDT benefits . He stated that MDT will enable specialists and health workers from diverse settings to connect with each other's roles and responsibilities with enhancement. Beside that shared identity and encouraging members in the team to trust each others with best commnuicatios and more holistic and person-centered practice. Consequently preventing unnecessary errors and avoiding any related impaiment to persons and their families, even will pemit official use of institutional resources through reduced duplication, greater productivity, and preventative care approaches. Finally, MDTs will mean professionals and practitioners are less isolated and will improve morale and reduce stress[4].

Kinds of literature focusing on evidence of MDT are different and varied. A comprehensive assessment of MDTs conducted by cancer services indicated that every study reported better results. These included higher survival rates, better patient satisfaction, and more thoughtful treatment planning. Job satisfaction in mental health services is increased by better teamwork. [5]. This has a positive relationship with the degree of choice that people who use help experience and their happiness with those choices. By encouraging professional cooperation, MDTs can promote greater care coordination and quality. Up to 27 clinicians participate in MDT sessions, which can run up to five hours in oncology services. Only three professionals, on average, participated in the discussion of each person's demands. Initially care Admissions to hospitals for patients in high-risk populations have not decreased as a result of MDTs. In fact, hospital admissions have marginally increased. [6].

In this article, we should highlight what Is Multidisciplinary Team Works likewise?. Focus on MDT working involves appropriately utilizing knowledge, skills, and best practice from multiple disciplines and across service provider boundaries to redefine, re-scope, and reframe health and social care delivery issues and to reach solutions based on an improved collective understanding of complex patient needs. Projects need to be able to learn from what has happened elsewhere and to introduce continuous evaluation into their work to ensure that formative learning also happens.

This has a positive relationship with the degree of choice that people who use help experience and their happiness with those choices. By encouraging professional cooperation, MDTs can promote greater care coordination and quality. Up to 27 clinicians participate in MDT sessions, which can run up to five hours in oncology services. On average, only three professionals participated in the discussion of each person's demands. Initially, care admissions to hospitals for patients in high-risk populations have not decreased as a result of MDTs. In fact, hospital admissions have marginally increased. [7].

However, it has been discovered that MDTs that operate in the community share a number of similar characteristics. These include a wide range of topics, such as generic practices where generalists and specialists collaborate. Instead of concentrating on secondary care, emphasize case management and assistance when providing home-based care. basic joint care planning, integrated assessments of care requirements, and programs and strategies for individual health care. identifying the care coordinators who serve as navigators and are in charge of patients' experiences and treatment at all times. The multi-

professional team shares clinical records as a final point. [8].

Actually MDT can give also different key success factors such as patient-centered care [9, 10,11] estimated in different articls. As well as physician integration and Shared goals and objectives [12, 13]. Shared information technology and access to patient data [14, 15, 16]. Culture, collaboration, and shared decision-making processes [17, 18, 19] . In addition co-location/geographical integration is important factor of key success. [20]. Targeting high-risk populations [21] considered as main success factor deal with the risk stratification and case finding, how to approaches to identifying at-risk populations [22,23], Challenges to effective risk stratification [24].

Key Challenges in Multidisciplinary Working

Our article also identified various factors that can make it more challenging to operate an effective multidisciplinary team successfully in Nineveh Health Directorate. These key barriers are:

- Time: Policymakers and service leaders alike frequently express a desire for rapid and widespread transformation. Yet, it often takes integrated care at least five years to deliver on the intended goals and become self-sustaining [25]. Projects that do not appear to be paying off quickly enough may be declared failed and cancelled. Investments in time are often required to put in place the information systems and data sharing protocols necessary for efficient interdisciplinary teamwork.
- Financial savings from integrated care projects are typically realized in the acute sector, while most services provided are based on primary and social care, creating a misalignment between performance indicators and financial incentives. Providing services in a coordinated fashion has the potential to reveal underserved areas and hone in on a very specific demographic. So, there may not be a good fit between economic goals and goals for improving the quality of service delivery [26].
- Neglecting to learn from others despite the availability of extensive resources on what works in integrated care compiled by independent organizations like Health Foundation. [27].

Material and Method

A cross-sectional study was conducted between August to November 2021 among specialist working in Nineveh Health Directorate in Nineveh Province (Doctors, Pharmacists, Dentist). The study follows the ethical principles of Declaration of Helsinki (2013). Approval to conduct this study was obtained from the Institutional Review of the Authorised Scientific Committee in Nineveh Health Directorate.

The study purpose was explained to the participants with all details of the research. Consequently, willing to share or not were made according to wishes not obligatory. Written consent form was fabricated for this purpose. Specialists are the study sample whether working either in public or private hospitals or centers or clinics in Nineveh. Sample size was intended according to the established role 10% from the total number of each group and even more (Table 1). The minimum calculated sample size was (242) participants.

Table 1: Method for Choosing Sample

Groups	Total Number of Groups	Total Number of Specialist in Groups	Sample required	Sample collected
Doctors	2801	890	89	161
Pharmacists	910	42	4	28
Dentists	838	104	10	53
Total			103	242

Google form prepared with specific questions (Demographical and Knowledge questions) translated to the mother language (Arabic Language). Structured and distributed online by sharing the link through electronic platforms (Facebook, Whatsup, Telegram, emails and other

social media). The form spread to only specialist's practitioners regardless their level of job or specialty. As well as the form cannot be submitted if there are empty answers, all fields should be completed. Rolling the form to the colleagues is ordered to reach maximum participation of specialists. The questions are searched and collected from different sites and then modified to serve the Iraqi community. The questionnaire consisted of five parts:

First Section: Basic demographic characteristics:

This section include ten personal items, these are gender (male and female), age divided to three groups (30 – 40 y, 41 – 50y and 51-60 y). An affiliation item includes (Directorate Center, Health Centers, Hospitals, Rural Area Health Centers and Health Specialist Centers) as well as specialty recorded involve most of specialties (Medicine, Surgery, Gynecology, Pediatric, Dentist and Pharmacist). Current positions recorded too (Institution Manager, Assistant Director, Unit Official and I don't have a Position). According to periods of service after specialization distributed between (1-5y, 5-10y, 10-15y, 15-20y and more than 25 y). Academic qualification also highlighted divided into (Diploma, Master, PhD , or Board and precise specialization) with Scientific or professional title (Specialist, Senior Specialist and Consultant).

Second Section: is Knowledge of specialized doctors about MDT Clinics:

In this section authors evaluate their knowledge regarding MDT by two main divisions (the general knowledge of specialist regarding MDT and time need for MDT set up). Involve two main items; item one includes 5 subdivisions. The main item concerned about general knowledge of specialist regarding MDT. The 5 subdivisions are MDT Clinic based around general practices that include generalists working alongside specialists. It's including management, support and provides management of complications. Include joint care planning and co-ordinated assessments of care needs. Provide health care plans and programmes for patients. Named care coordinators who act as navigators and who retain responsibility for patient care and experiences throughout the patient journey. Clinical records are shared across the MDT; MDTs positively affect treatment decisions. MDTs reduce time to treatment and MDTs can improve outcomes. The other main item is how long did it take to set up the MDT. The subdivision item is knowledge about time need to setup a MDT clinic through single question which is MDTs are designed and implemented in organizations over a period of time between 3 months for planning and 2 years for implementation. The answers are (True, I don't know, False) for all the items.

Third Section: is about the Key Benefit in Multidisciplinary Working

Divided into three parts include institution, patients and clinicians, each division include five questions as follow. Part 1 focus on the aim for setting up an MDT at the institution; five sub divisions are MDTs at the institutions were developed to provide the best clinical management decisions, ensuring the best results for patients, the MDT enables clinicians to discuss treatment strategies for difficult cases directly among different specialists. Improve the ability to tailor treatment to the individual patient . MDT can provides a learning environment for younger clinicians. The MDT is a fundamental part of the Functional Unit approach in any country, wherein all patients are seen by a team of specialists at the same time and place.

The second main item is about the main benefit to patients. It's including delivering comprehensive, evidence-based health care adapted to the individual patient. Shorten time for diagnosis and to treatment. Patient and family satisfaction increase when they are immersed in a good organization. Patients can receive increased discussion of treatment options and access to innovative clinical trials. The other question about patients trust a proposed treatment based on the collective recommendation of the MDT without the need to request a second opinion.

Third main item is about the main benefit to clinicians. In the same manner it's explore 5 items. These are about information sharing quickly and easily with communication between specialists is improved resulting in increased professional satisfaction. MDT meetings provide a continuous learning environment that improves the training of

fellows and the overall competence of the team. The newest treatments and protocols can be discussed and proposed to our patients. The MDT decreases the inappropriate consumption of health resources. The final item is concern with implementation of an MDT approach may improve patient recruitment to clinical trials. The answers are (True, I don't know, False) for all the items.

Forth Section: Obstacles.

In this section authors highlight the difficulties which that prevent the implementation or use the MDT principle in the institutions. The main question is what, if any, roadblocks did you face and how did you overcome them? The sub questions are five also, these are about main roadblock was to change the clinician's mentality from one of owning the decision to a process of collective decision-making. Lacking of motivation to participate by doctors also added as obstacle item. Lack of functional rules added to that the need for a common schedule among MDT participants to devote themselves to attending the committee. Lastly the need for a place designated for MDT considered too. The answers are (True, I don't know, False) for all the items.

Fifth Section: Management Information

Another section added about administrative requirements which is (What factors were key to implementation?) to explore the acquaintance for the applications of MDT. Basically institutional leadership is the key and the departments involved in the MDT must be in agreement. Depending on this fact; so the managers should have an important role in knowledge dissemination about MDT. Section five highlights the role of managers in these questions: hospital must provide the necessary rules guidelines, and structure. In addition, hospital management should have the MDT as a goal in their strategic plan, item about cooperated institutional leadership around the MDT. Does the institution have a strategy around the MDT and is there a regular structure for the MDT Staff. The end item is there legal frameworks for MDT in the institution. The answers are (True, I don't know, False) for all the items.

Google form arranged as 43 questions in total divisions collected and analysed. Three point Likert scale are used to assess answers in all sections except the demographical informations (8 questions), answers ranged from true, I don't know and false.

Statistical and data analysis

Information regarding each participant was transferred into Excel data sheet forum using Pentium IV. Statistical analysis was done using SPSS Package version [26] using three answers Likert Scale test with significant p value equal toor less than 0.05 was considered. The data then was presented in suitable tables and figures. Percentages were calculated for the various group comparison of the variables was made in the sample by computing the odd ratio.

The data analysis included descriptive statistics were employed to analyze the percentage. For correlations spearman test are used for all questions. The analysis was performed using IBM SPSS for Windows, version 21.0.

Result

Statistcal analysis done to find the percentage in the demographical informations and the questions's answer too. Pvalue for significant correlation are estimated by spearman test for all the answers sheet.

Section One: Demographical informatins assessment.

In regards to age groups ninety five individual (39.3%) are aged between (30-40 ys) old. Male forming the highest percent (60%). The most answers come from the health specialist centers (30%). Followed by the hospital and rural area consequently (23.1 , 22.7 %). Considering the speciality; physions are the largest group according to the study design sampling method (161 from total 242) where medicine branch doctors are the most (29%) followed by peadiatric branch (20.2%). Dentists and pharmacist are forming (21.9 , 11.6 %) consequently.

Professional experience in years ranged from 10-15 years forming (31.8%) are the highest and the leaset are more than 25 years with percent (6.6). PhD and or Board are the 43.8% in consideration to qualification. In professionalism item; specialist

are more than half of the participants. Table 2 show all the details.

Table 2: Demographical Informations of Study Sample

First Section: Basic demographic characteristics:			
Variables		**Sample No.**	
		No.	**%**
1. Age	30 – 40 Y	95	39.3
	41- 50 Y	89	36.8
	51 – 60 Y	58	24.0
2. Gender	Male	147	60.7
	Female	95	39.3
3. Work Place	Directorate Center	13	5.4
	Health Centers	45	18.6
	Hospital	56	23.1
	Rural Area Health Centers	55	22.7
	Health Specialist Centers	73	30.2
4. Specialties	Medicine	71	29.3
	Surgery	28	11.6
	Gynecology	13	5.4
	Pediatric	49	20.2
	Dentist	53	21.9
	Pharmacist	28	11.6
5. Current Position	Institution Manager	14	5.8
	Assistant Director	16	6.6
	Unit Official	55	22.7
	I don't have a Position	157	64.9
6. Professional experience (years)	1 – 5 Y	54	22.3
	5 – 10 Y	18	7.4
	10 – 15 Y	77	31.8
	15 – 20 Y	53	21.9
	20 – 25 Y	24	9.9
	More than 25 Y	16	6.6
7. Qualification	Diploma	56	23.1
	Master	66	27.3
	PhD , or Board	106	43.8
	precise specialization	14	5.8
8. Professionalism	Specialist	132	54.5
	Senior Specialist	86	35.5
	Consultant	24	9.9

Questineers analysis sections (Table 3)

Second Section: is Knowledge of specialized doctors about MDT Clinics:

Participant's knowledge evaluated regarding MDT by two main divisions (the general knowledge of specialist regarding MDT and time need for MDT set up). Involve two main items; item one includes 9 subdivisions. The main item concerned about general knowledge of specialist regarding MDT.

The 9 questions in general answered by yes (71.5, 61.2,76.9, 89.3, 100, 95.9, 79.8 and 80.2) except questions five which is about named care coordinators who act as navigators and who retain responsibility for patient care and experiences throughout the patient journey answers were more than fivtey answers by no (57.4%). Knowledge's answer about time need to setup a MDT clinic 55% don't know about the time needed or setting MDT in the institutions.

Table 3: Question's Answers of Study Sample

Second Section: is Knowledge of specialized doctors about MDT Clinics:						
Questions List	**Questions answers**					
	Yes		**I don't Know**		**No**	
	No.	**%**	**No.**	**%**	**No.**	**%**
I. General Knowledge of Specialist Regarding MDT: (9 – 18)						
1. MDT Clinic based around general practices that include generalists working alongside specialists.	173	71.5	26	10.7	43	17.8
2. It's including management, support and provides management of complications	148	61.2	25	10.3	69	28.5
3. Joint care planning and co-ordinated assessments of care needs.	186	76.9	46	19.0	10	4.1
4. Provide health care plans and programmes for patients.	216	89.3	18	7.4	8	3.3
5. Named care coordinators who act as navigators and who retain responsibility for patient care and experiences throughout the patient journey.	86	35.5	17	7.0	139	57.4
6. Clinical records are shared across the MDT	242	100.0				
7. MDTs positively affect treatment decisions	232	95.9			10	4.1
8. MDTs reduce time to treatment	193	79.8	14	5.8	35	14.5
9. MDTs can improve outcomes	194	80.2	48	19.8		
II. How long did it take to set up the MDT?						
MDTs are designed and implemented in organizations over a period of time between 3 months for planning and 2 years for implementation.	83	34.3	133	55	26	10.7
Third Section: is about the Key Benefit in Multidisciplinary Working						
What was the aim for setting up an MDT at your institution? (19 – 23)						
1. MDTs at the institutions were developed to provide the best clinical management decisions, ensuring the best results for patients.	224	92.6	18	7.4		
2. The MDT enables clinicians to discuss treatment strategies for difficult cases directly among different specialists	167	72.7	57	23.6	9	3.7
3. Improves the ability to tailor treatment to the individual patient.	187	77.3	15	6.2	40	16.5
4. Provides a learning environment for younger clinicians	44	18.2	134	55.4	64	26.4
5. The MDT is a fundamental part of the Functional Unit approach in any country, wherein all patients are seen by a team of specialists at the same time and place.	242	100.0				
What has been the main benefit to patients? (24- 28)						
1. Deliver comprehensive, evidence-based health care adapted to the individual patient.	242	100				

2. Shorten time for diagnosis and to treatment	224	92.6	18	7.4		
3. Patient and family satisfaction increase when they are immersed in a good organization	152	62.8	12	5	78	32.2
4. Patients receive increased discussion of treatment options and access to innovative clinical trials	190	78.5	44	18.2	8	3.3
5. Patients may trust a proposed treatment based on the collective recommendation of the MDT without the need to request a second opinion	242	1				
What has been the main benefit to clinicians (29-33)						
1. Information is shared quickly and easily, and communication between specialists is improved resulting in increased professional satisfaction	55	22.7	160	66.1	27	11.2
2. MDT meetings provide a continuous learning environment that improves the training of fellows and the overall competence of the team.	242	1				
3. The newest treatments and protocols can be discussed and proposed to our patients	242	1				
4. The MDT decreases the inappropriate consumption of health resources	242	1				
5. The implementation of an MDT approach may improve patient recruitment to clinical trials	242	1				
Forth Section: Obstacles (34-38)						
1. The main roadblock was to change the clinician's mentality from one of owning the decision to a process of collective decision-making	26	10.7	106	43.8	110	45.5
2. Lack of motivation to participate by doctors	151	62.4	27	11.2	64	26.4
3. Lack of functional rules؟	21	8.7	28	11.6	193	79.8
4. The need for a common schedule among MDT participants to devote themselves to attending the committee	21	8.7	28	11.6	193	79.8
5. The need for a place designated for MDT	64	26.4	35	14.5	143	59.1
Fifth Section: Management Information. What factors were key to implementation? (39-43)						
1. Institutional leadership is key, and the departments involved in the MDT must be in agreement. Once this has been achieved, the hospital must provide the necessary rules, guidelines, and structure. In addition, hospital management should have the MDT as a goal in their strategic plan.	62	52..5	34	14	146	60.3
2. Is there a cooperated institutional leadership around the MDT?	52	21.5			190	78.5
3. Does the institution have a strategy around the MDT?	175	72.3	25	10.3	42	17.4
4. Is there a regular structure for the MDT Staff?	217	89.7	19	7.9	6	2.5
5. Are there legal frameworks for MDT in the institution?	217	89.7	19	7.9	6	2.5

Third Section: is about the Key Benefit in Multidisciplinary Working

Institution, patients and clinicians benefit, each division include five questions. Part 1 focus on the aim for setting up an MDT at the institution; question four which is Provides a learning environment for younger clinicians answered by don't know mostly (55.4%) on the other side the rest 4 questions are yes with sequence (92.6, 72.7, 77.3, 100%).

The second main item is about the main benefit to patients. It's including delivering comprehensive, evidence-based health care adapted to the individual patient (100%) yes . Shorten time for diagnosis and to treatment (92.6%) yes. Patient and family satisfaction increase when they are immersed in a good organization (62.8%) yes too. Patients can receive increased discussion of treatment options and access to innovative clinical trials (78.5%) also yes. The other question about patients trust a proposed treatment based on the collective recommendation of the MDT without the need to request a second opinion agreed by all participants (100%) yes .

Third main item is about the main benefit to clinicians. In the same manner it's explore 5 items. Actually all participant agreed (100%)that MDT are benifecial to clinicians except the question about information sharing quickly and easily with communication between specialists is improved resulting in increased professional satisfaction; (66.1%) reply by (I don't know).

Forth Section: Obstacles.

Difficulties which that prevent the implementation or use the MDT principle in the institutions are stated in this section . The replayes of these five subdivision questions about the obistecls. Most of participant (45.5%) disagree the idea about main roadblock was to change the clinician's mentality from one of owning the decision to a process of collective decision-making. Lacking of motivation to participate by doctors agreed by more than (60%). The three rest questions are ranged nearly same answers which is (NO) with a percent (79.8, 79.8 and 59.1%)

Fifth Section: Management Information

Administrative requirements questions highlighted in the final section also five questions. Different answers question 1 and 2 replyed by no (60.3, 78.5%). Question about institutional strategy around the MDT and is there a regular structure for the MDT Staffand is there legal frameworks for MDT in the institution. The answers are (72.3, 89.7 and 89.7%) answered by yes.

For correlation and signifacncy, correlation is significant at the 0.01 level (2-tailed) through spearman test. Most of answers show significant relations and the answers which show 100% single replay are omitted from the tables (Table 4 A, B, C and D)

Table 4: Spearman Correlations Test for the Sample

A. Demographical Information with Each Other's

Spearman Correlations									
		Age	Gender	Institution	Specialty	Current Position	Years' Work	Qualification	Professional Title
Age	CC	1.000	.904**	.563**	.536**	-.223**	.683**	.883**	.867**
	Sig.	.	.000	.000	.000	.000	.000	.000	.000
Gender	CC	.904**	1.000	.666**	.292**	-.191**	.691**	.770**	.878**
	Sig.	.000	.	.000	.000	.003	.000	.000	.000
Institution	CC	.563**	.666**	1.000	.349**	.118	.443**	.579**	.634**
	Sig.	.000	.000	.	.000	.067	.000	.000	.000
Specialty	CC	.536**	.292**	.349**	1.000	.209**	.361**	.676**	.506**
	Sig.	.000	.000	.000	.	.001	.000	.000	.000

Current Position	CC	-.223**	-.191**	.118	.209**	1.000	-.009	.001	-.022
	Sig.	.000	.003	.067	.001	.	.893	.989	.731
Years' Work	CC	.683**	.691**	.443**	.361**	-.009	1.000	.578**	.696**
	Sig.	.000	.000	.000	.000	.893	.	.000	.000
Qualification	CC	.883**	.770**	.579**	.676**	.001	.578**	1.000	.867**
	Sig.	.000	.000	.000	.000	.989	.000	.	.000
Professional Title	CC	.867**	.878**	.634**	.506**	-.022	.696**	.867**	1.000
	Sig.	.000	.000	.000	.000	.731	.000	.000	.

**. Correlation is significant at the 0.01 level (2-tailed).

B. Demographical Information with Question List from (Q1-Q10)

		Q1	Q2	Q3	Q4	Q5	Q7	Q8	Q9	Q10
Age	CC	.701**	.799**	.614**	.389**	.780**	.233**	.563**	.559**	.851**
	Sig.	.000	.000	.000	.000	.000	.000	.000	.000	.000
Gender	CC	.775**	.835**	.679**	.431**	.494**	.258**	.624**	.619**	.650**
	Sig.	.000	.000	.000	.000	.000	.000	.000	.000	.000
Institution	CC	.665**	.596**	.654**	.432**	.265**	.259**	.625**	.620**	.507**
	Sig.	.000	.000	.000	.000	.000	.000	.000	.000	.000
Specialty	CC	.442**	.339**	.499**	.338**	.615**	.202**	.489**	.485**	.715**
	Sig.	.000	.000	.000	.000	.000	.002	.000	.000	.000
Current Position	CC	.115	.005	.192**	.249**	-.282**	.149*	.264**	.284**	-.064
	Sig.	.074	.939	.003	.000	.000	.020	.000	.000	.325
Years' Work	CC	.766**	.634**	.714**	.473**	.377**	.346**	.674**	.677**	.584**
	Sig.	.000	.000	.000	.000	.000	.000	.000	.000	.000
Qualification	CC	.641**	.757**	.589**	.460**	.681**	.361**	.524**	.542**	.844**
	Sig.	.000	.000	.000	.000	.000	.000	.000	.000	.000
Professional Title	CC	.754**	.870**	.693**	.585**	.509**	.364**	.640**	.652**	.758**
	Sig.	.000	.000	.000	.000	.000	.000	.000	.000	.000

C. Demographical Information with Question List from (Q11-Q21)

		Q11	Q12	Q13	Q14	Q17	Q18	Q19	Q21
Age	CC	.042	-.253**	.606**	-.040	.319**	.854**	.450**	-.386**
	Sig.	.513	.000	.000	.540	.000	.000	.000	.000
Gender	CC	-.131*	-.079	.670**	-.115	.353**	.945**	.410**	-.502**
	Sig.	.042	.219	.000	.075	.000	.000	.000	.000

Institution	CC	-.087	-.097	.656**	.183**	.353**	.638**	.329**	-.526**
	Sig.	.179	.134	.000	.004	.000	.000	.000	.000
Specialty	CC	.403**	-.317**	.506**	.198**	.276**	.247**	.384**	-.207**
	Sig.	.000	.000	.000	.002	.000	.000	.000	.001
Current Position	CC	.129*	.109	.226**	.043	.204**	-.179**	.205**	-.161*
	Sig.	.046	.092	.000	.503	.001	.005	.001	.012
Years' Work	CC	-.044	.265**	.706**	-.469**	.445**	.679**	.386**	-.572**
	Sig.	.497	.000	.000	.000	.000	.000	.000	.000
Qualification	CC	.233**	-.280**	.576**	.098	.435**	.738**	.544**	-.295**
	Sig.	.000	.000	.000	.129	.000	.000	.000	.000
Professional Title	CC	.246**	-.010	.689**	-.130*	.497**	.848**	.633**	-.370**
	Sig.	.000	.873	.000	.044	.000	.000	.000	.000

D. Demographical Information with Question List from (Q26-Q35)

		Q26	Q27	Q28	Q29	Q30	Q31	Q32	Q33	Q34	Q35
Age	CC	.879**	.409**	.586**	.586**	-.808**	.874**	.612**	.687**	.381**	.381**
	Sig.	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Gender	CC	.838**	.548**	.403**	.403**	-.831**	.633**	.421**	.760**	.422**	.422**
	Sig.	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Institution	CC	.634**	.583**	.432**	.432**	.542**	.427**	.446**	.662**	.423**	.423**
	Sig.	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Specialty	CC	.549**	.351**	.628**	.628**	-.294**	.703**	.656**	.461**	.331**	.331**
	Sig.	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Current Position	CC	-.004-	.263**	.063	.063	.268**	-.103	-.003	.129*	.244**	.244**
	Sig.	.952	.000	.332	.332	.000	.111	.960	.046	.000	.000
Years' Work	CC	.524**	.440**	.070	.070	-.526**	.502**	.126	.756**	.462**	.462**
	Sig.	.000	.000	.281	.281	.000	.000	.050	.000	.000	.000
Qualification	CC	.887**	.449**	.709**	.709**	-.740**	.871**	.741**	.632**	.456**	.456**
	Sig.	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
Professional Title	CC	.923**	.517**	.443**	.443**	-.828**	.697**	.463**	.745**	.583**	.583**
	Sig.	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000

CC. = Coefficient Correlation
Sig. = Significant (2-tailed)

Discussion

An MDT clinic, or committee, has the unique responsibility of organizing and supervising patient treatment across a range of specialties and diseases. The cases are discussed at the Specialty Multidisciplinary Team's weekly or monthly meetings, after which the patient and their loved ones are briefed on the plan [28].

For effective operation and synchronization of patient information, the clinical specialist is an important employee who acts as a liaison between the MDT and larger community teams, including the GP, and social workers and other voluntary organisations groups. There should be a coordinator for each MDT who plans the meetings side by side with other members from differents qualifications[29, 30]. According to that speed consultations and interactions between the various specialists and, ultimately, shorten the time it takes to diagnose a patient and/or begin treatment, different units incorporate multidisciplinary committees that include all the departments engaged in a patient's care [30].

As a matter of principle, members of the MDT should regularly meet, assess patients, and access a wide range of therapeutic alternatives, whether they are located in rural or metropolitan healthcare facilities, regardless of distance. Patients should also participate in discussions regarding their management and care, and they should get the proper information from medical professionals at the right time [31].

In developed nations, there are a variety of social, political, and economic elements that can have an impact on health care as well as a wide range of health concerns. In this essay, the writers attempt to draw attention to significant differences in the delivery of healthcare and services by the MDT committee in Nineveh Province, Iraq.

Regarding the study's novelty, our research indicates that it is the first to address this topic inside the Nineveh Health Directorate. The importance of the study was in figuring out how much experts knew about the MDT committee and the services that went with it.

For the most secure, expert, and reliable care possible, MDT places a greater focus on professional interference than on individual health services. Numerous challenges may also arise, including the need to shift clinicians' mindsets from one of individual decision-making to one of group decision-making, as well as the need for volunteer engagement and physician motivation. The meeting space requirement for each committee member; a shared calendar for MDT participants to commit to attending committee meetings; and the requirement for a meeting space Understanding the specialized expertise and the challenges can help with the integration of health [32].

Budgets and funding issues might also be difficult. The prevalence of patients with various conditions has increased over the past few decades, indicating the need to move health services from being managed by individual experts to being managed by collective experts. Patients must also learn how to work with more than one expert, since their profiles change over time and as their illnesses get worse [29].

Section One: Demographical informations assessment.

The number of participants working for the Nineveh Health Directorate was taken into consideration when selecting the study sample. The age range given above is above 30 years, which is above the typical range in Iraq for finishing a postgraduate degree, which is above 29 to 30 years. All the job sites are included in the study since different specialties are scattered throughout various sectors in both urban and rural areas. In this study, the length of time spent working (professional experience) was also kept track of. The study's authors thought that as people worked with new technology and laws, it might change their knowledge over time.

Second Section: Knowledge of Specialists about MDT Clinics:

The specialist is put through a series of tests to gauge their understanding of MDT. Although most specialists are knowledgeable and aware of their roles, most of them are unaware of the length of time required to establish an MDT committee.

Prticipants will undoubtedly learn about the MDT Committee. Setting the MDT in Nineveh or Iraq can take longer or shorter amounts of time depending on a number of factors, such as the province's extremely bad political and economic effects from the three-year ISIS war (2014–2017).

Third Section: is about the Key Benefit in Multidisciplinary Working.

The advantages of MDT for all patients, clinicians, and institutions are very well known across the world. Notwithstanding, in this study,

the authors would want to gauge the level of professional knowledge regarding these advantages. The majority of participants agreed with all of these benefits, with the exception of the fact that it can create a learning environment for younger physicians (most specialists are unaware of how the MDT might accomplish this).

Along with enhancing care coordination, MDT can also provide more educational opportunities for medical professionals, leading to improved patient outcomes [33]. These educational opportunities come from ongoing conversations, the sharing of knowledge, and a scientifically advanced approach to treating patients. Each specialist completely agreed on the benefits of the MDT for them.

The fact that patients and healthcare professionals were involved and acknowledged as members of the development teams from the beginning had a positive impact on multidisciplinary collaboration. For this, the expert informed others about the parts of their recommendations that were followed and the parts that weren't. Some claim that receiving this feedback was more significant than actually acting on it because it made them feel valued as a team member and allowed them to respect the opinions of others regarding a course of treatment, management, or diagnosis. Even though they were not officially recognized as a group, they did take part in the committee [34].

Regarding the benefits to patients, numerous papers concurred that MDTs are advantageous to patients in a variety of ways since they can enhance treatment outcomes and care quality while facilitating improved access to health information. It will take less time to identify and treat illnesses in accordance with rigorously accepted norms if patients can be treated simultaneously with a variety of necessary expertise. All of these will increase patient and family satisfaction. In this article, the experts unanimously agreed on these issues, but they were divided on the question of whether or not patients should be given more time to consider their treatment options .[35].

When patients and specialists benefit from MDT and see improved results, the organization will unquestionably improve as a result. It was frequently challenging to coordinate meetings with the entire team, despite the fact that there were certain organizational issues due to the fact that most individuals had varied schedules. If necessary, sub-meetings can resolve this issue. Gathering specialists from various specialties to discuss potential treatment regimens and methods improves the ability to personalize treatment to each patient's needs. Both the expert and I agreed that MDT is an essential component of any nation's functional unit strategy, in which all patients are seen by a team of specialists at the same time and location. In general, researches about the benefits of MDT agree that it is very helpful to improve health care services, even though there are problems and challenges [36, 37].

Forth Section: Obstacles

The establishment of MDT programs can provide numerous difficulties and challenges, particularly in developing nations like Iraq that encounter numerous hindrances. One of these impediments is the shift in doctors' thinking from individual patient management procedures to group decisions made by committees. In this study, 43% of respondents said they were unaware of any barriers that would prevent doctors from speaking up in the MDT committee; however, more than half said the main issue was a lack of desire.

In order to achieve the main goal and avoid changing their minds, participants in the MDT should basically agree to adhere to the committee's principles. They should also give the committee adequate time and space in their schedule to function, as otherwise their duties may conflict with those of the committee. Participants had different expectations for the MDT. Participants seemed to agree that making expectations clear would make it more likely that multidisciplinary teamwork would be at its best.

In research published in 2017 by Louise Johnson et al., they noted that "At first, there was a propensity for people to operate in their own professional silos and a lack of desire to join forces and collaborate in the provision of care, both at the service level and on an individual basis. The removal of these obstacles has made care delivery more dependable and efficient ". Furthermore, they emphasize that the MDT team's

collaborative ability to lead the service while accepting responsibility for their various professional groups has made the approach to chronic health disease particularly strong.[38].

Fifth Section Management Information

The questions are targeted at the key to achieving the MDT, which might be tied to institutional leadership; as a result, managers and leaders must set the appropriate norms and guidelines. More than 60% of the participants disagree with that statement, believing it to be the province's directorate's or the ministry of health's responsibility rather than the hospital's. In addition, 70% of the participants discovered that there is no institutional cooperation between hospitals because they lack the main directorate leadership centered on the MDT.

High percentages of participants agreed that each hospital or institution had its own strategy with a regular staff structure and legal framework for MDT. The authors say that if the MDT meets at the specialists' workplaces, it won't affect their work schedules and they won't have to do anything extra to go to the MDT committee meeting in a different place .

The Louise Johnsona et al. (2017) that focuses on multidisciplinary stroke care in poor nations believe that the MDT for stroke patients is the cornerstone of high-quality care. They also start to think of themselves as specialists, which makes them want to work alone and gives them less reason to talk to other people [38]. According to research, health professionals in underdeveloped nations have little expertise in chronic diseases [39].

In 2010, Oborn and Dawson did a study that, in their words, "shows how team members might help others integrate new meaning and understanding into their own specialized knowledge abilities." In addition, the study found that it is useful to examine how resistance manifests in a multidisciplinary setting or to contrast the knowledge-sharing procedures between teams that have just been formed and those that have been around for a while [40]. The conclusions of our research suggest that teams need continuing growth to permit a blend of individual and interdisciplinary decision-making rather than simply reducing the focus on individual judgment and replacing it with collective judgment.

In particular, the authors of the Tayana Soukup review in 2018 said that managing conflict within teams and communicating effectively with coworkers at all levels of hierarchy are acknowledged as essential contributors to the delivery of safe, high-quality care across specialties [41].

There is also evidence that decisions that take into account the patient's preferences, performance status, and comorbidities are more likely to be used because they are more clinically sensible and are liked by patients. This outcome reflects the expertise of the specialists because they all concur that MDT is beneficial for all patients, physicians, and institutions. All of the participants have a good understanding of the things that could get in the way of the MDT's work or environment [42, 43, 44, 45].

The study's limitations include the fact that it would be preferable to assess the expertise of other participants, such as general practitioners, senior house officers, and nursing personnel. Additionally, a comparison study comparing the expertise in different disciplines across multiple institutions is required. The MDT committee should also find out what the managers think about how much real service each institution provides of details pertaining to the patient.

Conclusion

Healthcare services that use multidisciplinary teams face a variety of difficulties, particularly in wealthy nations. These difficulties are well-documented in numerous articles. For experts, a major challenge is the transition from gathering individual judgments in the delivery of healthcare to collecting shared judgments. Finding the motivation and time to complete the MDT can be a challenge for the members and interfere with their other responsibilities. The specialists in the Nineveh province who were included in the study sample, including the doctors, pharmacists, and dentists, had solid knowledge of MDT.

They all concur that MDT has advantages for all institutions, patients, and medical professionals. The major objective of MDT is to provide all

patients with high-quality, specialized medical care while advancing knowledge among MDT members. Discussions and information sharing among team members can boost patient satisfaction by building rapport between patients and physicians. The end result may be a reduction in the error rate, violence, hospital stay length, and mortality.

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