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RESEARCH ARTICLE

OLD AGE LIAISON MENTAL HEALTH SERVICEIN QATAR; INTERVENTIONS AND OUTCOMES

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Abstract

Background: There is wide variation in the degree of provision of liaison mental health services across many countries (3) Qatar is no exception, in a general hospital in southern part of Qatar, Liaison Old Age Mental health is provided by Adult Psychiatrists with a phone advise from an Old Age Psychiatrist when requested. A general Hospital in the Northern division of the country is provided by Adult Psychiatrists with one day input from an old age Psychiatrist. Older adults Patients with mental health problems using acute and general hospital inpatient services should have access to a liaison service that specializes in the diagnosis and management of older people's mental health (5) The research represents a newold age liaison psychiatry service intervention and outcomes in the state of Qatar.

Methods: We audited the number referrals to Old Age Mental Health Liaison one year before a new service intervention in a central General hospital and one year after the service intervention. All referrals are received by the Liaison coordination office in the General hospital and data was collected electronically from the office to ensure accuracy. We also audited the educational interventions done for both staff and patients/Families.Our study included all the number of referrals for patients aged 65 plus and under 65 with Dementia to ensure the maximum statistical power possible for the service intervention.

Results: The total number of referrals for patients aged 65 and above or below 65 with Dementia from June 2021 to May 2022 were 125 (n=125). The total number of Old Age Liaison Similar referrals after the service intervention from June 2022 to May 2023 were 95 referrals (n=95, p 0.01, 24% reduction in referrals rates)The Chi squared test was used to calculate the p value. Expected average of referrals to a general hospital was estimated from several inner cities' general hospitals (8,21)

Conclusion: The authors believe that is the first service to focus on Old Age Mental Health Liaison in the state Qatar. The study was statistically significant and qualitatively included educational outcomes provided for both staff and Patients/families. In addition, it showed an overall reduction in the number of referrals following our intervention.

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Introduction:-

The demographic changes that the state of Qatar has experienced during the last several decades has led to an increase in percentage of older persons. The actual number of persons aged 65 and above in Qatar has increased from 32,375 in October 2019 to 37,025 in October 2020 and to 38,576 in October 2021 and the predicated number in October 2023 is 41738 (1)

Older adults with mental health problems are five times more likely to be admitted to a general hospital,especially in an emergency. Mental disorder in olderpeople is an independent predictor of poor outcomes especially increased mortality, greater length of stay, loss of independent functions and higher rates of institutionalization (2,3,5,6). There is a need for specialist expertise inOld Age liaisonmental health, an essential component of a high performing general hospital (4)

Old Age Liaison mental health services are specialist services for mental health care in a physical health setting. The service supports clinicians workin EDs and wards to assess and manage mental health problems as they present or arise among people being cared for in a general hospital (5)

There isa significant difference in the detection and management ofmental health problems that arise in later lifewhen there is an increasedcomorbidityand different psychosocial factors behind their disorders. In addition to potential cognitive impairment and adverse effects of drugs treatment (4,6).

International studies suggest that two-thirds of general hospital in-patient beds are occupied by older people, with up to 60% who will have an existing mental disorder or interestingly will develop one during their admission.Higher rates of dementia, delirium and depression have been reported in older in-patients in general hospitalsin several studies (3,6,25) Rehabilitation is also more difficult due to multiple disabilities and increased frailty (6)

Patients with suspected or known dementia using acute and general hospital inpatient services should have access to a liaison service that specializes in the diagnosis and management of older people's mental health (5)

Methods:-

There is wide variation in the degree of provision of liaison mental health services across countries (3) Qatar is no exception, in a general hospital in southern part of the Qatar, Liaison Old Age Mental health is provided by Adult Psychiatrists with a phone advise from an Old Age Psychiatrist when requested. A general Hospital in the Northern division of the country is provided by Adult Psychiatrists with one day input from an old age Psychiatrist.

Most older patients are transferred to the more centealHamad General Hospital due to local logistics. Consequently,Hamad General Hospital was selected for our intervention due to a previous audit showing that just over 80% of older adultsLiaisonpatients are being transferred to or admitted to that site or referral to old age Liasion Mental health is from that site. We considered several interventions including adopting other Liaison international models done elsewhere, and a do-nothing option was also considered. We decided not to generalize models that has worked in other places as it may not work in the State of Qatar due to several reasons including cultural factors, logistics, training& teams designs.

Prior to May 2022, Old Age Mental Health Liaison in Hamad General Hospital was provided by Adult Psychiatrists for four days per week andby an old age Psychiatrist for one day per week.We reviewed the quality and safety of older mental health Liaison patients as part of our old age Psychiatry training program review. This represented either a delay in care or care provision by a non-specialist in Old Age Psychiatry.Most adult Psychiatrists providing the care for older persons did not have a formal higher training in Old Age Psychiatry in Qatar.

In May 2022, we enhanced the Liaison Old Age mental health services as a local initiative to provide direct clinical care for five days per week by Old Age Psychiatrists rather than once weekly only.We looked at the intervention for the patients (educating patients/families and general hospital staff) who were looking after Liaison older patients on disorders unique to older persons and where an Old Age Psychiatristwas found more appropriate to provide the intervention. The intervention also focused on considering the appropriate medication by a qualified Old Age Psychiatrists in Qatar.

We audited the number of Old Age Liaison Referrals one year before the service intervention. All referrals are received by the Liaison coordination office in the General hospital and data was collected electronically from the office to ensure accuracy.

The total number of referrals for patients aged 65 and above or below 65 with Dementia from June 2021 to May 2022 were 125 (n=125). The total number of Old Age Liaison Similar Referrals after the service intervention from June 2022 to May 2023 were 95referrals (n=95, p 0.01, 24% reduction in referrals rates)

The Chi squared test was used to calculate the p value. Expected average of referrals to a general hospital was estimated from several inner cities' general hospitals (8,21). Our study included all the number of referrals for patients 65 plus and under 65 with Dementia to ensure the maximum statistical power possible for the service intervention.

Liaison old age mental health is a specialized area of work and old age trainees and recently qualified specialists need propertraining and clinical supervision (6) Consequently we audited that educational intervention was done for patients/Families and staff and the right medications offered through an existingin-place process of electronic supervision where assessments are reviewed and countersigned by a more senior old age psychiatry consultant.

We excludedthe number of referrals prior to May 2021 due to the implications and restrictionsimposed by thepandemic severe acute respiratory syndrome corona virus (SARS-COV-2) being a major confounding factor at that time that can skew the results. We ensured there were no major factors in the general hospital or at the old age psychiatry department thatwould affect the results except for the service intervention.

Results:-

The results showed a correlation between the number ofreferrals and the increase in number of days provided by recently qualified old age psychiatrists (Figure 1)Our intervention showed a significant reduction in number of referrals after the intervention.There are several factors that contribute to the reduced number of referrals after the intervention. The intervention may have led tobetter recognition&managementfor delirium patientsthrough clinical education for staff in the general hospital. Inappropriate referrals could have been reduced after educating hospital staff by old age QualifiedPsychiatrists. This means enhancing the confidence of general hospital staff in old age mental health disorders. It is known that factors initiating a referral to Old Age Mental Health Liaison include the ability to identify the problem. Reported detection rates for mental disorders in older people in general hospitals indicate difficulties at this stage (14,15) and hence the importance of our service intervention. Adherence to recommendations is demonstrated in a single blind trial of mental health consultation for depressed older people admitted to medical wards where recommendations were implemented in less than 50% of cases (6,18) Enhanced adherence through general hospital staff confidence with the initial management provided by old age specialists could have been another factor for reduced referrals rate on longer term.

There were concernsthat the accessibility to thenew service would lead to it being swamped with referrals. However, the introduction of the old age mental health liaison five days servicehas been associated with a 24% reduction in annual referrals (Figure 1) (N= 95, P= 0.01, 95% confidence)

Our findingsare consistent with other research, suggesting a decline in the referral rate following the introduction of a clear mental health liaison model (25)

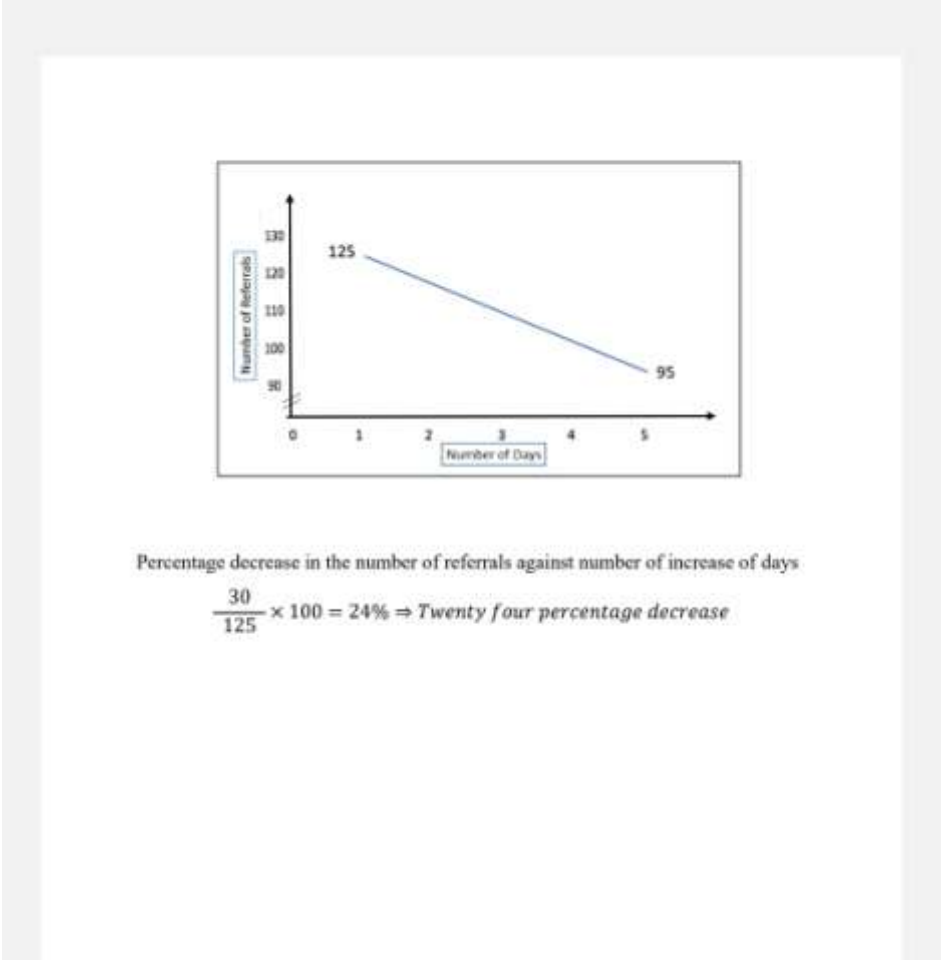

Figure 1:- Correlation between increasing days of care by recently qualified Old Age Psychiatrists and Number of Referrals.

Strengths and Limitations:

The authors believe that is the first service to focus on Old Age Mental Health Liaison in the state Qatar. The study was statistically significant and qualitatively included educational outcomes provided for both staff and Patients/families. In addition, it showed an overall reduction in the number of referrals following the intervention. We believe that our outcomes are evidence based and although our outcomes are limited, they are specific, measurable, attainable, and time linked.

The data were collected electronically from the Liaison coordination office to minimize any error. The other strength was transferring the Old Age Liaison model from a consultation model to an Old Age Liaison Provision.

We acknowledge that existing referral levels before and after the intervention will not be an accurate indicator of the overall level of the service demand. Therefore, we should not assume that current referral data are a reliable estimate of demand in these areas in the present time and in the future (5)

We also acknowledge that our outcomes were restricted but important. Our statistical analysis was based on the average expected numbers of referrals in similar hospitals overseas that may not be representative. But it was the closest possible data that can provide a control for estimating the numbers to calculate a p value. Our new service is also expected to reduce antipsychotic use in General hospital through provision of care by old age qualified specialists. Although this was also measured in our study through supervision, it could also be a potential for further future research as antipsychotics use in Dementia have been associated with risk of mortality and cardiovascular insults (30). Another limitation is that we do not know the exact number of older patients that would have been prescribed antispychoticsinappropraitely before our intervention.

Discussion:-

Larger General hospitals are more likely to have separate services for older adultswhile smaller hospitals or hospitals with smaller number of older adults' referrals often have a single service for adults of all ages (4) This model alsoapply in the state of Qatar where hospitals withlower Old Age Mental Health Liaison referral rates are still managed by Adult Psychiatrists with phone advise from an Old Age Psychiatrist if neededfor complex cases.

Creating a new service or increasing the capacity of an existing service is central to improving outcomes. The outcome measures used in our study were relatively limited, but significant. There is little consensus on how best to capture the diverse activities, outcomes and performance of old age liaison psychiatry services (10)

Several Old Age Mental Health Liaison models have been described in literature such as care provided by the general adult liaison service, provision of Liaison by old-age psychiatry community mental health teams and collaborative care provided jointly by adult liaison and old-age psychiatry services. The effectiveness of these different models has not been studied thoroughly (12). Service delivery should reflect local demand, therefore different models may be required in rural and urban areas (5).

If people of all ages receive the same service, regardless of their specific needs, then the risks of delivering unsafe and inadequate care amount to indirect discrimination (4)

Earlier International studies suggested that at least 30% of all liaison psychiatry referrals were for people over the age of 65.6 (9). Depression, Dementia and Delirium are much more common in general hospitals than in the community (6)

The main indications for referring to Old Age Mental Health LiaisonServicein a general hospital are known from other studies and are mainly low mood; 65.8%, impaired cognition and confusion; 36.2% behavioral disturbance; 21.7%, and abnormal beliefs and experiences; 15.4%(8)

Good quality of care within general hospitals isakey objective for patients with dementia (12) and up to a quarter of older patients in a general acute hospital will have dementia (6,7)

It is estimated that referring doctors to Old Age Mental Health Liaisonin ageneral hospital will experience difficulties in delivering their management plan to nearly half of all older patients (11) including discharge arrangements issues that would result in an extended length of stay in hospital and a late referral (11).

A popular Liaison model in the UKis called the integrated Rapid response Psychiatric Liaison(RAID). The model is based on reducing length of stayin general hospital, response time and reducing cost. The RAID approach also included staff education. However, RAID is anall-age model, and studied Old Age as a separate group within RAID (22). This could have led in our opinion to dissolving the needs of olderpeople with mental health conditions into a more generic service. Indeed,the proportion of readmissions within 30 days in RAID was very high between 47.7% and 88.7% for those with chronic illnesses, dementiaand those from deprived areas. In addition, very few of the RAID staff who worked with older adults felt they had received sufficient training or education to perform core aspects of their role (23,24)

The Royal College of Psychiatrists in UK supports the provision of comprehensive liaison psychiatry services, but at the same time the college highlighted the risk that this term encourages the incorrect assumption that services can be staffed by 'all-age' liaison psychiatrists, who are able to assess and manage patients of any age. This assumption in the college opinion requires medical staff to work beyond their competence and may result in lower quality patient care. Consequently, it is helpful according to the college to think of liaison mental health services for patients of all ages rather than all-age liaison mental health service (4)

Ourservice approachin Qatar focused on the older patients' needs and the outcomes were thenumber of referrals, enhancing response time through provision of five days per week by appropriate old age psychiatry specialists. Educational intervention included both staff and patients' education. Forout of hours, we had awell-designedRota for consultants and Trainees where older patients will have a risk assessment with or without a brief intervention till reviewed next working day by a qualified old age psychiatry specialist.

Old Age liaison mental health services development is usually the result of local initiatives with a particular interest and rarely the result of strategic planning. It is possible to adapt local services and resources to provide an effective model (19) and consequently was our intervention.

Evidence informs us that missed diagnosis in general hospitals for delirium is 32-67% and for cognitive impairment is 55%. A meta-analysis reported the detection rate for depression from rare to 26%. There is inconsistency in the treatment of Old Age mental disorders ingeneral hospitals. Depressed older medical patients may be as likely to receive benzodiazepines as antidepressants and as few as 25% of depressed olderpeople with hip fracture receive antidepressants. There is over prescribing of psychotropic medication for the management of delirium and the use of psychological treatments is rare. (14, 15)

Older people only account for 5- 15% of all cases of self-harm admitted to a general hospital andare at high risk of completed suicide. Education for patients and staff is essential in this context. The majority have a mental disorder and all cases of self-harm involving an older person should receive a specialist mental health assessment. General hospital referrer attitudes, knowledge, communication skills and the patient's age, gender and severity of symptoms all influence the detection of mental disorder. Compared to younger people, the older people themselves are less likely to acknowledge mental health problems such as depression. Educating patients was another factor in our intervention(6,19, 20)

Early and accurate detection of mental health issues is foundation for healthy ageing including recognition of delirium and dementia in an acute hospital setting to improve outcomes for older patients as well as proactive and coordinated discharge planning,

Old Age Psychiatry Higher Training in Qatar

Old Age Psychiatry Fellowship Training Program in Qatar is well established and supported with an outstanding multidisciplinary team. The Old Age Psychiatry Fellowship program is the highest level of training in old age psychiatry in the state of Qatar. The program is considered the first in Old Age Psychiatry in the region andincludes a lengthy training for a period of three years in old age psychiatry in addition to a fourth year of supervision after graduating from the program to ensure the best quality of patients care. The program was nominated Internationallyfor the Accreditation council of Graduate Medical Education (ACGMEI) in June 2023 through a formal application.

Old Age Psychiatry Fellowship training program is considered the second largest program in mental health service in Qatar (29). The program provides a high degree of competency in all the domains of old age psychiatry including Community, inpatients, and old age Liaison and medico legal aspects. However, the new Liaison Old Age Psychiatry servicerepresentsfor the first-time recently qualified Old Age Psychiatry Fellowship program graduateswith focus on Liaison Old Age Psychiatry in line with the aims, goals and objectives of the old age Psychiatry fellowship program that was developed by the authors (29)

Old Age Psychiatry specialists and other staff training is required in areas such as the laws that safeguard the rights of older people who are vulnerable, clinical ethics and the complex issues surrounding assessments and network of community support for effective discharge for older persons (12, 13)

Old Age Psychiatrists will normally have the Knowledge and trained in mental health problems in relation to coexisting physical health problems. They haveability to identify social factors in the presentation of mental health problems that are special for older adults. They provide expertise in the assessment and management of delirium and dementia (5)

Psychiatrists who have not trained in Old Age Psychiatry or had less than complete training in Old Age Psychiatry should not be required routinely to assess or manage patients aged 65 or above or under 65 with Dementia except if closely supervised by an old age qualified psychiatrist or a consultant with a significant experience in old age psychiatry (4)

Mental health service in Qatar has set an example in the region where it has expandedtraining for both core and higher mental health trainees in Old Age Psychiatry and in Liaison Old Age Psychiatry and consequently expanded

the workforce of Old Age Psychiatriststhrough enhancing opportunities for the old age fellowship program graduates to deliver high-quality Old Age liaison psychiatry services.

Conclusion and Recommendations: -

Old Age Mental Health Service in the state of Qatar offers consultations to general hospitals. The term consultation is used in many countries such as USA (28), Italy (26), India (27)and in the state of Qatar till the date of our service intervention. Other countries prefer to use the term Old Age Mental Health Liaison such as in UK (19) or Geriatric Psychiatry Liaison such as in Singapore (21)

The term consultationimplies a case-by-case referral generally offering a limited review. It has limitations including slow response, low priority, little experience of the general hospital environment,little potential for training and development and poor adherence to recommendations, no capacity to develop better standards of old age mental health practice in general hospitals and being essentially reactive (6). Services providing consultationswere advised to move toOld Age Mental Health Liaison approach (6,18)

Old Age Psychiatry Liaisonserviceor Old Age Mental Health Liaison Service is a developed term. (14,17). The term is more proactive, and not limited to direct patient contact. It requires closecollaboration with general hospital departments, and the development of education and training programmes (6) It also reflects a more multidisciplinary potential (5,6).

A systematic review of older people's mental health services concluded that the liaison approachis also associated with more specialist assessments, better diagnostic accuracy by referring doctors, and increased adherence to recommendations for managing mental disorders (16) This could have been another reason for the reduced numbers of referrals.

A randomized Controlled trial found that older medical patients with various mental disorders were twice as likely to return to independent living if they received Old Age specialist mental health multidisciplinary liaison than those receiving usual care. It also suggeststhat mental health specialist liaison for older people with hip fracture was associated with a reduced length of stay (6).

Old Age Liaison Mental Healthspecialists must not be left to work in isolation. Clinically unsupported practitioners, especially early in their career, are highly susceptible to overload (19) This was avoided in our fellowship in Qatar as recently qualified old age Liaison Psychiatrists are integrated into the wider old age Mental Health Multidisciplinary team, an acceptable and evidence-based approach in literature to mitigate that aspect (12) This is in addition to providing supervision by a senior consultantor the Program Director for at least one further year after graduating from the three years fellowship program representing the lengthiest training in old age psychiatry regionally& likely globally.

Authors Conflict of Interest

No conflict of interest was declared, and the authors did not receive any funding.

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