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Research

A number of Managing the Mix divisions conducted research to inform the implementation of their projects.

This research is relevant to exploring the delivery of alcohol and mental health comorbidity treatment services in primary care settings.

Two examples of research and their outcomes are considered here:

- **Top End Division:** An Intervention in the Northern Territory Remote Community of Borroloola
- **Bendigo & District and Murray Plains:** AUDIT Screening by the Better Outcomes in Mental Health Care program.

Top End

The Top End Division of General Practice conducted research in the Health Centre in the remote community of Borroloola. The research revealed barriers to mental health care integration between the Health Centre and the visiting Aboriginal Mental Health Worker (AMHW). The findings have led to the inclusion of a system for the AMHW to highlight his patient notes in the records of the Health Centre. In addition, joint working has improved between the centre and the AMHW, and other improvements are currently being considered.

Bendigo & District and Murray Plains

The Bendigo and Murray Plains divisions have incorporated alcohol screening into their Better Outcomes in Mental Health Care (BOiMH) program. The divisions analysed the data from this activity, with the findings demonstrate a need for alcohol treatment for a significant proportion of BOiMH clients. A number of recommendations from the research subsequently informed the rollout of the project.

Top End

An intervention in the Northern Territory Remote Community of Borroloola

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Aim

Prior to the intervention, services were being provided independently by the Aboriginal Mental Health Worker (AMHW), the visiting District Medical Officer (DMO) and the primary health care team at the Borroloola Health Centre to clients in the community.

The intervention, therefore, was intended to facilitate integration of mental health services, in supporting treatment of alcohol misuse and mental health as comorbid conditions, in the remote NT community of Borroloola.

Borroloola

Located 670 km southeast of Katherine and 1,000 km from Darwin, Borroloola is in the Gulf of Carpentaria region on the McArthur River. Approximately 1,100 people reside in the community, while 800 people live in the 25 outstations that are serviced by the community. The outstations incorporate areas that were previous pastoral leases, as well as the island communities on the Sir Edward Pellew group of island. There are four main clan groups – Mara, Yanula, Garawa and Kurdanji, with Garawa and Yanula the main spoken languages. English is regarded as a second language.

Borroloola has a fully licensed pub and a licensed premise at the Amateur Fishing Club 41 km from town on the Macarthur River.

Background

The AMHW has been providing essential mental health care within the community for five years and has attained Certificate IV at Batchelor Institute of Indigenous Tertiary Education. There had been a resident GP in the town who worked closely with the AMHW, where the relationship was nurtured under the "Working Both Ways Program" through the More Allied Health Services (MAHS) Program. When the opportunity arose for participation in the MAHS program the GPs within TEDGP elected that the program be focused on mental health services within remote indigenous communities in the Top End. The greatest need was identified in this arena.

For a number of years a GP resided in the community so that an effective relationship was able to develop between the AMHW and the GP through "Working Both Ways". The objective of this program was to develop a two-way partnership between the primary health care team who provide clinical support and advice, while the AMHW provides advice on local knowledge and culturally safe practice. However, since the departure of the GP a new one has yet to be recruited, and services are being provided by the salaried District Medical Officer who visits from Katherine on a regular basis.

The Borroloola Health Centre is funded and managed by the Department of Health and Community Services (DHCS), with services provided by a primary health care team. At the time of the intervention the team comprised a manager, four registered nurses, three Aboriginal health workers, and additional services from three drivers. The Aboriginal health workers and the nurses maintain normal clinic hours Monday to Friday in addition to being on call at other times when they attend to emergency calls, follow-ups and non-emergency presentations.

The intervention

Initial discussions took place between TEDGP and Borroloola Health Centre in December 2005, when the issue of non-integrated care was raised in a meeting at the health centre. The possibility of systematically reviewing patient records in the health centre to identify mental health patients who require ongoing support was discussed, in addition to the need to incorporate notes from the records of the AMHW. At the time, two sets of records were being kept within the community with little interaction between them. The Health Centre was aware of the role of the AMHW and did not hesitate to liaise for acute care and when an emergency situation arose, however, there was no ongoing systematic process in place. It was agreed that a recall register of mental health problems needed to be established to support ongoing and long-term care.

After approval for the intervention was granted by the Director of Remote Services, DHCS in January 2006, the TEDGP team went to Borroloola to work with Health Centre staff to undertake the intervention from 1 to 7 February 2006. The TEDGP team undertaking the project included the chronic disease project officer (who is also a registered nurse), the AMHW who lives and works in Borroloola and the indigenous advisor (who is also a senior AMHW).

Methodology

The project officer was advised by the Health Centre manager to review only the 1,540 permanent files and was allocated an office to work without intruding on the functioning of the centre. The Health Centre had commenced a recall list (total of five patients) and the visiting Katherine Mental Health Team had an active list, which totalled 12 patients. The AMHW provided his patient list of 24 patients. The Project Officer combined these three lists as a starting point.

In reviewing the file the project officer noted patients' name, sex, date of birth, current medical conditions, whether they were on a chronic disease recall register and or had a care plan. Patient notes were reviewed noting the reason for the visit and the person who wrote the entry, eg Mental Health Team. All of the files were reviewed in five days.

The review of the records identified the following categories: domestic violence (with referral to the Mental Health Team); grief counselling not followed up; overdose (medicine); attempted suicide; threatened suicide; hallucinations; self harm; child behavioural problems; clients reviewed by the visiting Mental Health Team; bipolar; psychoses; anxiety/stress; schizophrenia; and depressive/mood.

The project officer discussed the findings from the review with the indigenous adviser who, as a consequence, was provided with a snapshot of the community's health issues relating to mental health and alcohol. The adviser was then able to take up further discussions with the AMHW.

A Stakeholder Satisfaction Evaluation was undertaken three months after the intervention, utilising the tool developed by the Managing the Mix project.

Results

As a result of the review 53 patients were identified and included on the recall register, with alcohol noted as a key factor in the attempted suicide and threatened suicide categories. Across the other identified categories alcohol abuse was also identified as a contributing factor. In adults, alcohol abuse was a major problem. Alcohol abuse accounted for a large percentage of clinic visits for trauma-related incidents and exacerbated mental illness problems.

It also became clear that the AMHW plays an integral role in visiting clients and supporting them with not only mental health care, but also cultural, alcohol and drug issues. In the evening, in his own time, this worker also provides care to youth in the community in relation to alcohol misuse. The project officer identified that this worker provides care to 18 clients who are not categorised as suffering from an identified mental health condition. It emerged from the review that the AMHW has a good working relationship with the visiting Mental Health Team from Katherine who visit approximately every six weeks.

Barriers to mental health care integration were identified to include lack of awareness by the Health Centre staff on the role of AMHW and the identities of his clients; minimal communication between the Health Centre staff and the AMHW, which was found to be partly due to the separate location of the AMHW office; and separate sets of records for clients in the community.

Discussion

Unfortunately, the visiting DMO was unable to be included in the review, since the DMO was not present at the time. The Health Centre staff reported that, although they often have the same attending DMO, there are times when a different DMO visits so continuity of relationship can be an issue. Nevertheless, it is generally considered that it is the primary health care team who deliver health services from the Health Centre rather than a GP-focussed model of service delivery.

The project officer recommended and immediately developed a sticker for the AMHW to fill in with his own notes for the benefit of the Health Centre and himself. When the AMHW visits the Health Centre he can now place the sticker into the file to keep the Health Centre records up-to-date and staff informed.

Outcome

At follow-up three months after the intervention the AMHW was writing notes into the file at the Health Centre and utilising the stickers as required. The AMHW is also being included up to three times a week in case reviews at the Health Centre.

Although the AMHW office is located away from the Health Centre, discussions are continuing for the AMHW to be allocated an office in a new building alongside the Health Centre. It was anticipated that a resolution would be reached at the beginning of 2006, but discussions are continuing.

The Stakeholder Satisfaction Evaluation demonstrated that awareness had been raised within the community in relation to the prevalence and burden of disease, enhancement through resource development, improvement of shared care infrastructure and satisfaction with the overall outcomes of the project. The most useful aspect of the intervention was the increased engagement between the Health Centre and the AMHW, with the stickers providing a valuable interface. The staff felt that with the lack of a resident GP it was not appropriate to comment on whether GP relationships had been enhanced.

Conclusion

A brief intervention by a qualified team outside of the community has the potential to successfully integrate mental health care to support patient care when there is alcohol misuse in a remote community. Integration may be achieved through the review of patient health records and the establishment of a recall register, integration of health records through the utilisation of a sticker and regular inclusion of the AMHW in Health Centre case management.

Bendigo & District and Murray Plains example

Analysis of Alcohol AUDIT Screening by BOiMH Program

Introduction

Since August 2004 the Better Outcomes in Mental Health Care (BOiMH) program operating out of the Murray Plains and Bendigo & District Divisions of General Practice has been incorporating alcohol screening for new clients entering the program. Practice mental health clinicians (psychiatric nurses and other allied health professionals) deliver the BOiMH psychological intervention service, working out of general practice clinics, as well as a centrally located office. Patients identified by GPs as having a high-prevalence mental health disorder (such as anxiety or depression) were referred to the clinicians, as part of the BoiMH service and invited to complete the screening tool. The process involved self-administration and/or clinician assisted completion of the AUDIT (Alcohol Use Disorders Identification Test) questionnaire.

The Division initiated the research as part of its ongoing drug and alcohol work. These research results provided a base-line for the Managing the Mix Project and the Pharmacotherapy Alcohol Treatment Project, both funded by Alcohol Education & Rehabilitation Foundation (AERF). They also provided useful data to include in the training for its Managing the Mix Project. In tandem with the research, Level One training in comorbidity was provided to approximately 20% of GPs in the two divisions.

An increase in referrals to alcohol treatment specialists (including the division's own pharmacotherapy alcohol treatment clinician) has occurred for alcohol relapse prevention by both the practice-based psychiatric clinicians and the GPs. Not only does this mean that more patients now receive more and better care, but that their conditions are treated as comorbid conditions, with trained GPs and staff aware of the implications of the dual diagnosis.

Results to date show that of the (then) 184 respondents who elected to complete the questionnaire, 34 (13.5%) were non-drinkers. Of the drinkers, 56 (35%) registered in the *risky* to *almost certainly dependent* drinking pattern, suggesting the need for further treatment and referral by the referring GP. 16 of those 56, registered in the highest scoring zone, suggesting the need for alcohol withdrawal, and pharmacotherapy for relapse prevention.

Another salient finding was that there appears to be a higher level of risky alcohol consumption in the BOiMH target group (30%) (those appropriate for time-limited psychological strategies, typically high prevalence disorders such as depression and anxiety) than in the general population (9.7%. National Drug Strategy Household Survey, 2001).

Comprehensive findings from this project are presented in this paper.

Sample Size

n = 184

Gender

34 respondents did not respond to this question (18.5%)

Of remaining respondents, Males = 41 (27%), Females = 110 (73%).

The ratio of females to males is therefore approx. 2.75:1.

Ages

15-18yrs = 4 (2%)

18-21yrs = 12 (7%)

21-25yrs = 13 (7%)

25-35yrs = 35 (20%)

35-45yrs = 55 (31%)

45-55yrs = 34 (19%)

55-65yrs = 24 (13%)

> 65yrs = 2 (1%)

5 did not respond to this question (3%).

Section One

Questions 1-3 are *alcohol intake* related questions, and, to some degree, can be compared to measures of risk, as indicated below.

Q1. How often do you have a drink containing alcohol?

Never = 24 (13%)

Monthly or less = 41 (22%)

2-4 times a month = 46 (25%)

2-3 times a week = 46 (25%)

4 or more times a week = 27 (15%)

Therefore, those who drank = 160 (87%)

The percentage of non-drinkers in the study (13%), regardless of age, compares with 14.1% for males and 20.8% for females aged over 14 years (*The Treatment of Alcohol Problems*, DOHA, June 2003, p6). Given the ratio of females to males in the study of 2.75:1, a higher percentage of non-drinkers in the study would have been expected. The number of drinkers in this study is therefore over-represented, but is not able to be measured accurately, due to under-reporting of gender. It would appear that people referred to BOiMH staff are more likely to drink than the general population.

Q2. Of those who drank, number of standard drinks on typical day when drinking

1 or 2 drinks = 71 (45%)

3 or 4 drinks = 43 (27%)

5 or 6 drinks = 26 (16%)

7 to 9 drinks = 4 (3%)

10 or more = 14 (9%)

Based on NHMRC (National Health & Medical Research Council) guidelines, long term risk for males is 5-6 per day, and high risk is 7 or more per day, and for females, 3-4, & 5 or more respectively. Against this standard, 4 identified males (10% of males) were at risk, and 8 identified males (20% of males) were at high risk, and 12 females (11% of females) were at risk, and 9 females (8% of females) were at high risk.

Comparing this to the general population aged over 14 yrs, where the highest percentage is in the 20-29 yr age cohort, at 10.2% and 4.5%, it can be seen that the study's target group was drinking to risk and high-risk levels to a greater degree.

Treatment response

These 43 (gender unidentified) of 160 drinkers (27%) need to reduce their alcohol consumption on a typical drinking day to 3-4 or less for males, and 1-2 or less for females.

Q3. Of those who drank, how often 6 or more drinks on one occasion?

Never	51 (32%)
<Monthly	56 (35%)
Monthly	26 (16%)
Weekly	25 (16%)
Daily, or almost daily	2 (1%)

Based on NHMRC guidelines, short term risk for males is 7-10 on any one day, and high risk is 11 or more on any one day, and for females, 5-6, & 7 or more respectively. Against this standard (and counting those who said yes to 6 or more on the AUDIT Questionnaire), 29 males (69% of males) were at risk or high risk, and 58 females (53% of females) were at risk or high risk.

Comparing this to the general population aged over 14 yrs, where the highest percentage in any category is 27.3%, it can be seen that the study's target group was drinking to risk and high-risk levels to a greater degree. It would seem that when they DO drink, they drink to excess, much more often.

Treatment response

These 109 of 160 drinkers (68%) need to reduce their heavy drinking days back to 6 drinks or less for males, and 4 or less for females.

Section Two

Questions 4-6 are *alcohol dependency* related questions

No firm statistical conclusions can be drawn from the individual questions, as there are no other benchmarks to rate each question against. There are other *severity of dependence* questionnaires that measure this more accurately. As a Section though, AUDIT does give an indication whether or not there is a dependency, giving an indication that more assessment and subsequent treatment is required.

Q4. Of those who drank, how often in last year couldn't you stop, once started?

Never =	114 (71%)
<Monthly =	25 (16%)
Monthly =	11 (7%)
Weekly =	5 (3%)
Daily, or almost daily =	5 (3%)

The data indicates that out of 160 drinkers, 46 (29%) were unable to stop drinking once they started, with differing degrees of frequency.

Treatment Response

It would appear that these 46 people need to be assessed for *severity of dependence*, with a view to more treatment being provided for their dependence.

Q5. Of those who drank, how often in last year failed to do what was normally expected, because of drinking?

Never =	119 (74%)
<Monthly =	28 (18%)
Monthly =	10 (7%)
Weekly =	2 (1%)
Daily, or almost daily =	0 (0%)

The data indicates that out of 160 drinkers, 40 (25%) will have some difficulty in fulfilling their responsibilities.

Treatment Response

It would appear that these 40 people need to be assessed for *severity of alcohol problems*, with more time and more treatment being provided over a longer period and/or from multiple sources, targeting the problems identified (including affect).

Q6. Of those who drank, how often in last year have needed drink in morning to get going after heavy drinking session?

Never =	152 (95%)
<Monthly =	6 (4%)
Monthly =	2 (1%)

The data indicates that out of 160 drinkers, 8 need a drink to get started again on the day after.

Treatment Response

It would appear that these 8 people need to be assessed for *severity of dependence*, with managed withdrawal being considered, with a view to more treatment being provided over a longer period and/or from multiple sources, targeting the problems and deficits apparently responsible, including pharmacotherapy for relapse prevention.

Section Three

Questions 7-10 are *problem* related question.
As for questions 4-6, no firm statistical conclusions can be drawn from any of the questions in isolation, as there are no other specific benchmarks to rate each question against. There are also *severity of problems* questionnaires that measure this more accurately. As a Section though, AUDIT does give an indication that more investigation is needed to assist the client.

Q7. Of those who drank, how often in last year felt guilt or remorse after drinking?

Never =	105 (66%)
<Monthly =	33 (21%)
Monthly =	11 (7%)
Weekly =	9 (6%)
Daily, or almost daily =	2 (1%)

The data indicates that out of 160 drinkers, 55 (34%) suffer drink-related guilt or remorse to varying frequencies. Could this be contributing to comorbid conditions such as anxiety and depression?

Q8. Of those who drank, how often in last year have been unable to remember what happened night before because drinking?

Never =	120 (75%)
<Monthly =	27 (17%)
Monthly =	8 (5%)
Weekly =	5 (3%)

The data indicates that out of 160 drinkers, 40 (25%) suffered this condition.

Q9. Of those who drank, have you or someone else been injured as a result of drinking?

No =	135 (84%)
Yes, but not in last year =	17 (11%)
Yes, during the last year =	8 (5%)

25 of 160 drinkers (16%) have contributed to the injuries of others over the course of their drinking.

Q10. Of those who drank, has anyone been concerned, and suggested cut down?

No = 123 (77%)

Yes, but not in last year = 10 (6%)

Yes, during the last year = 27 (17%)

23% of the 160 drinkers have had someone express concern to them about their drinking. Did the psych nurses also express concern, and/or take any follow-up action.

AUDIT Score Results

Any Total Score from 8-15, with Dependency Score below 4 on the AUDIT scale indicates a *risky* or *hazardous* drinking pattern. This applies to thirty-six respondents, which equates to 19.6% of the respondents and 22.5% of the drinkers.

Any Total Score from 16-19, with Dependency Score below 4 on the AUDIT scale indicates a *high risk* or *harmful* drinking pattern. This applies to four respondents, which equates to 2.2% of the respondents and 2.5% of the drinkers.

Any Total Score of 20 or more, with Dependency Score below 4 on the AUDIT scale indicates a *high risk* drinking pattern. This applies to one respondent.

Any Total Score of 20 or more, with Dependency Score of 4 or more on the AUDIT scale indicates an *almost certainly dependent* drinking pattern. This applies to fifteen respondents, which equates to 8.2% of the respondents and 9.4% of the drinkers.

Using Total Score of 8 and above as the level at which a minimum treatment level (such as Brief Intervention) should occur, then 56 of the 184 respondents (30%) should have received additional treatment than the usual BOiMH intervention, and 16 of them should have been referred for alcohol withdrawal and pharmacotherapy for relapse prevention

Limitations

No factorisation or cross tabulation has been attempted on the data due to poor response rate to gender question.

No direct correlation can be drawn from age as comparative age cohorts in literature are different to the AUDIT Questionnaire.

Findings

Fifty-six of the 184 respondents (and 160 drinkers) should have received targeted counselling for alcohol issues, and or comorbidity issues. 16 of those should have been offered possible alcohol withdrawal, relapse prevention and pharmacotherapy.

As a research tool, the AUDIT Questionnaire, whilst statistically reliable and valid as a self-report questionnaire, does not line up with other current measurement standards

(eg 6 drinks or more), and do not have separate questionnaires for male and female.

The data supports previous findings that there is a higher level of risky alcohol consumption in the mental health target group (31% Vs 6.1%).

Screening of all new clients should continue, in order to provide BOiMH workers with more information when planning treatment interventions.

Recommendations

Systems and protocols may need to be developed to enable BOiMH nurses to identify dependency via scoring the AUDIT form themselves, on completion of the form, and referring back to GP for further referral or treatment.

That seeing as alcohol consumption levels and associated risks are differentiated by gender, that the study continues, with altered self-report questionnaires, to ensure that gender is identified for every respondent.

Modified screening of all new clients should continue, with a more appropriate screening tool identified for use with BOiMH clients.

An improved model of shared care should be developed to ensure holistic care of, and better outcomes for, clients with comorbid problems.

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