Mental health nurses' medicines management role: a qualitative content analysis

Aim: This study explores medicines management role undertaken by mental health nurses (MHN) in a wide variety of clinical specialisms and contexts.

Method: Ten MHNs were interviewed and audiotaped. Qualitative content analysis of the transcribed interviews was undertaken.

Results: These findings evidenced the wide ranging skills and knowledge the MHN utilizes when psychotropic medication is prescribed, and how they engage with service users and other practitioners. Four themes emerged that illustrated how the participants undertook such interventions: Medicines management in context; Managing time; Knowledge and skill used; Collaboration with other healthcare providers. Medicines management thus needs a greater emphasis in order for the for service users from the drugs they are prescribed achieves the optimum outcome.

Introduction- the MHNs' Medicines Management Role

Medicine Management (MM) involves the prescription of the most effective psychotropic medication to improve health outcomes whilst minimizing any adverse effects. Secondly the emphasis on collaboration with the patient to manage medication so it has the optimum effect (Harris, 2009). Prescribed psychotropic medication, either as a main or as an adjunct intervention with talking based or social milieu therapies, can be a significant factor in the recovery of mental health service users (hereafter, service users) (Mutstata, 2011). More than 90 per cent of service users have taken such medication as part of their treatment in the inpatient (Care Quality Commission, 2009) and over 80 per cent in the community setting (Care Quality Commission, 2013). However, non-adherence to psychotropic medicine is common and estimated to be between 50 to 80 per cent (Gray, et al, 2010), although not significantly different from medicines taken for medical conditions (National Institute of Clinical Excellence-NICE, 2009). MHNs are the largest registered professional group working in the mental health context with one inpatient study showing up to 22% of MHNs time can be spent with service users and 10% of the their total shift time (Whittington and McLaughlin, 2000).

Mental Health Nurse Influence

Studies related to the roles undertaken by nurses in MM have shown that nurses can have a key influence on what medicine is prescribed for service users generally (Jutel and Menkes, 2010). This influence has been also noted in mental health nursing (McCann and Baker 2002) and particularly in liaison with junior doctors and GPs (Ramcharan et al, 2001).
Tensions with the MM role

The use of psychotropic drugs has been a mainstay in the treatment of mental health conditions since the 1950s, and mental health nurses (MHNs) have been strongly associated traditionally administering and assessing the outcome (Chadwick and Bressington 2009). There are however major issues with psychotropic medication. Antipsychotics, mood stabilisers and, to a certain extent, antidepressants induce associated ‘iatrogenic’ morbidity significantly contribute toward decreasing life expectancy (Edward and Alderman 2013). Thus people with a serious mental illness diagnosis may die prematurely in some circumstances 20 years earlier when compared to the general population (Edward et al, 2010, Nash, 2011). Against such a background the role of the MHN with psychotropic medicine has been subject to debate.

The MHN MM role for example has been recognized in inpatient services to be a major intervention (Frauenfield et al, 2013) but is perceived as an overused intervention that conflicts with any advocacy on behalf of the service user (Rungapadiachy et al, 2004). The MHN MM approaches and associated nurse prescribing initiatives have also been criticized with the suggestion they conflict with a focus on recovery and service user choice (Snowden, 2010). Thus the MHN interventions in this respect are seen as a dominant medical approach about pushing tablets and injections toward symptom relief or medical recovery rather than engaging with the service user about their needs and aspirations about the care they receive (Barker and Buchanan-Barker, 2012, Edward et al, 2014). In contrast, it has been suggested that a holistic approach incorporates biological as well as psychological and social approaches to fully address service users’ mental health and physical status and subsequent needs (Bailey and Hemingway 2006; White et al, 2013). A significant consequence of this critical perspective is that MM has become marginalized, with the emphasis on psychosocial interventions negating the MM skill base and therefore limiting MHNs’ ability to implement holistic interventions as necessary to support the service user toward their own recovery (Snowden, 2010). Bressington and White (2015) summarized the daily dilemmas MHNs face, in term of the moral, legal and ethical duty to ensure that people, who take antipsychotics to aid their recovery, or those who choose to discontinue them, do so based on an informed decision. Thus as Bressington and White state any anti-medication slant should not negate the potential of helping the service user to make such decisions.

The aim of the main study was to evaluate if MHNs believe the pre-registration education and training they received at university still has relevance to their day–to-day practice with medicines, as registered nurses (Hemingway et al, 2010; Hemingway et al, 2014). This paper
reports on analysis of data that emerged that focused on the role and type of MM activities the participants reported as part of their everyday role.

Fig 1 *Stages 1-4 Hemingway et al (2010) Stepped Approach*

**Design**

A qualitative design was used, incorporating individual interviews and content analysis as described by Newell and Burnard (2006).

**Methods**

The primary focus of the qualitative interview was on participant's experiences of medicines management education and training and involved the researcher actively participating in the process exploring this topic and the lived experience of MHNs. The researcher sought to facilitate participants’ perceptions of their MM role, as well as construct themes emerging from the interview and subsequent reflexive analysis of the data (Hoare, Mills, & Sifting, 2011).

Specific questions that related to this paper were:

- Can you describe your day-to-day involvement in your MM role?
- What is the time commitment you give to MM?
Sample & Recruitment
A purposive sample was generated (Newell and Burnard, 2006). Inclusion criteria included registered MHNs who were graduates from the University of Huddersfield from 2009-2013, employed by South West Yorkshire Foundation Partnership Trust, and who had experienced the Medicine with Respect Project (Hemingway et al, 2010). Recruitment was carried out through a Trust-wide email, where interested MHNs could contact the researcher. A total of ten participants were recruited, with nursing experience ranging from 1-4 years. The service contexts they practiced included adult (7 participants) and old age psychiatry (3 participants), and the settings included inpatient (6 participants), community (3 participants) and clinic (1 participant). The clinical context gave an idea of the wide ranging specialist areas MHNs practice MM interventions in response to service user need and related provision of care.

Table 1. Participant characteristics

<table>
<thead>
<tr>
<th>Allocated number and role</th>
<th>Context</th>
<th>Service user age group</th>
<th>Post graduate experience (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff nurse</td>
<td>Inpatient acute</td>
<td>Adult</td>
<td>1</td>
</tr>
<tr>
<td>Senior clinical Practitioner</td>
<td>Community</td>
<td>Adult</td>
<td>1.25</td>
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<tr>
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<td>Psychiatric intensive care unit</td>
<td>Adult</td>
<td>4</td>
</tr>
<tr>
<td>Staff nurse</td>
<td>Medium secure unit/inpatient</td>
<td>Adult</td>
<td>1</td>
</tr>
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<td>Inpatient</td>
<td>Old Age</td>
<td>2</td>
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<tr>
<td>Community staff Nurse</td>
<td>Early intervention service</td>
<td>Adult</td>
<td>2</td>
</tr>
<tr>
<td>Staff nurse</td>
<td>Memory clinic/outreach</td>
<td>Old Age</td>
<td>2</td>
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<tr>
<td>Staff nurse</td>
<td>Low secure inpatient</td>
<td>Adult</td>
<td>3</td>
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<tr>
<td>Staff nurse</td>
<td>Inpatient</td>
<td>Adult</td>
<td>1</td>
</tr>
<tr>
<td>Senior clinical Practitioner</td>
<td>Admiral nursing/outreach</td>
<td>Old age</td>
<td>4</td>
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Data collection
Individual, semi-structured, audio-recorded interviews were used, each lasting approximately 30 minutes.
Data analysis
A qualitative content analysis of the data was undertaken. Interviews were transcribed verbatim. These were then subject to content analysis as set out by Newell and Burnard’s (2006).

Ethical considerations
A UK National Health Service Integrated Research Application System submission was made and permission was granted to undertake the study (Reda ID: 088). The study satisfied the research governance requirements of the NHS Trust where participants were employed. Informed consent was obtained in writing and participants were informed they could withdraw from the study at any time.

Findings
The participant characteristics are presented in table 1. After analysis four categories were abstracted from the data that pertained to the medicines management roles the participants undertook in their day to day practice: Medicines management in context; Managing time; Medicines management versus other interventions; Skill and knowledge used; and Collaboration with other healthcare providers.

Medicines management in context
MHNs work across the lifespan and with service users with differing diagnosed mental health problems. Therefore, MM interventions have to be adapted to the context and type of service given and service user need. Inpatient units provide 24-hour care for people with acute mental health problems. A participant discussed the MM role of the inpatient MHN: “When a patient comes in, they are in a distressed state, quite acute and, in most cases we use medication to help them deal with this distressed period before we can put other plans in place”.

The Psychiatric Intensive Care Unit (PICU) is a secure facility for service users whose mental health is a danger to themself or others. One participant highlighted the difference from an open acute ward where the acuity of the mental health presentation in the PICU determines the MM intervention; “Different routes of administration used for people that are quite disturbed and quite psychotic … rapid tranquilisation, is more predominantly used on the PICU”.

Medium secure settings care for people referred by a court or transferred from prison under the mental health act or when people need to be treated in a more secure setting that a normal hospital can offer. In this setting, MM is a prominent intervention, particularly in
establishing a therapeutic medication regime that enhances recovery: “Part of the remit is to provide that structured environment where people might have been changing medication or starting new medication”.

Within the older people’s inpatient environment the affects of aging physical health is as much of an issue as mental health status therefore this necessitates the MHN having physical health assessment skills. “Because a lot of them (service users) have a lot of medication for physical problems”.

The low-secure rehabilitation and recovery environment provides assessment, treatment and rehabilitation of people with severe mental health problems who may have been in contact with the criminal justice system. A step-down from the medium-secure care, service users may be receiving treatment that aims to introduce them back to society including managing medication for them. A staff nurse in such a setting explained how their MM role can vary depending on the service user’s recovery plan: “we administer medication, we also supervise three of our service users who all self-medicate. So they administer it themselves and we just observe that they’re administering the right medication.”

Working in adult community mental health involves MHNs still employing MM interventions whilst engaging and working with the service user and psychiatrist: “I think it’s the nurse’s job to act as almost a go-between between the service user and the psychiatrist who might have different opinions of what a medication is for”.

The early intervention service is designed to engage service users typically diagnosed with a first episode of psychosis. Although non-medical approaches are considered as the primary focus of this service, prescribed medicines also play a prominent role in treatment. “The participant who worked in this service believed medicines contributes toward a good therapeutic outcome: “It alleviates their symptoms that they’re experiencing, so that they’re able to then live, you know, a normal life, whatever ‘normal’ is to them”.

Memory clinics evolved to provide specialist for people with Alzheimer’s disease and other memory problems. The clinics provide facilitate early diagnosis, give information about how to manage the conditions, access support, initiate and monitor of treatment interventions that include the prescribing of acetylcholinesterase medication. The work of one participant in a memory clinic showed how MM interventions were implemented: Our main role is just to titrate people on medication and then discharge back to GP, once they’re on the right medication”. Assessing the effect and ensuring adherence to medication is central to the memory clinic’s role. Also due to the service user’s cognitive functioning, liaison with the main carer is central for a successful outcome: “After people are prescribed medication we’d ring them after a month and see how things are going and if everything’s ok. We’d organise
another prescription, find out which carer it’s best to send it [the prescription] to. A lot of it is by phone to the carer”.

The participant who works in an Admiral Nursing Service for nurses specialising in dementia stated their MM role depended on differing circumstances: “It comes down to two separate roles with medications”. First, being involved directly in prescribed MM for dementia: “It’s the medications to manage their memory as the (Memory Service) get involved with initial titration. But if there’s problems along the way, we’ll liaise with the (Memory Service), we’ll liaise with the consultants and we’ll talk about, perhaps, starting Memantine or another drug that we feel might help if something’s no longer suiting somebody” Second, being involved with the overall functioning of the service user: “Where there is either an issue with the person living with dementia in terms of their mood or behaviour, mobility, some parkinsonian style illnesses where we become involved in discussions with the GP”.

Managing time
Participants all agreed their role did not involve as much as this figure suggested, but still encompassed a significant amount of time. The degree of time commitment varied, however, across participants’ practice settings. For those working in the inpatient adult age acute setting MM interventions occur regularly: “Most of the people are prescribed medication maybe four times a day. Administration of medication is, kind of, the biggest part of our role; necessary within an acute ward as well…in a seven and a half hour shift, you can spend two hours doing medicine”.

The complexity and time commitment of working in the inpatient older people’s service was also emphasized: “There’s obviously the medication rounds, which we would divide up, but they could take anywhere between an hour and a half to two hours on a shift because you had an in-patient unit of 18 people, each person you’d have to, administer all the medications, take them to encourage that person to take medications. Obviously, you have to have your checks for controlled drugs, you have to, spend time drawing up medications, measuring things, if they’re in a liquid form, so it ends up taking a lot of time to do a medication round. Apart from that, there are PRN medications, so there’s quite a lot of time you spend with people so all in all it could well take up, you know, a third of your time on a shift”.

Whilst in the inpatient medium forensic environment, MM also requires a significant investment of time: “A lot of our medication management revolves around people maybe titrating off one medication onto another and managing that transition period, I’d say 25 per cent is spent on medication management”.

For the participant who works in a memory service, MM is a central part of their role, and
the timing of their interventions follows a set format: “I usually do two afternoons a week, I do a clinic Thursday afternoon, I do home visits one day, and the rest is typing up. So I always have two afternoons for titration and doctors’ letters and ringing carer’s to find out how people are going”. Whereas the Admiral Nurse whose role is to support the carer of someone diagnosed dementia MM interventions may vary depending on whether medication issues need to be addressed: “it is all about getting them on the right medications and it can be both the person with dementia and the carer and I can go on an hour and a half visit and two thirds of that visit is medications management. However, this can change. Sometimes I won’t see anybody for medication issues for three or four days”.

The MHN in the Early Intervention Service, with a focus is on supporting the service user to find the most appropriate intervention, time spent with MM depends on the service user’s mental state: “We work in a model of diagnostic uncertainty, and medication is not always the first point of call. However, we do recognise its purpose and obviously use accordingly, if required”.

Knowledge and skill used

Utilising the appropriate intervention with psychotropic medication involves the combined use of knowledge and skill. One adult inpatient participant gave an indication of how this applies in practice. “So that requires us to have the knowledge on the medication, suitable for that person, according to how they present to you ” And then in specific situations pharmacological knowledge is used: “Sometimes, you have to ring the on-call duty doctor and ask if they could prescribe them that type of specific medication you feel would be ideal for that person with the way they present”.

The community MHN participants compared the nurses’ knowledge with social workers in terms of their knowledge of psychotropic medication: “I feel as nurses we have more in-depth knowledge of it. It feels, easier for us to understand, because we’re around it more”. A participant working in a medium-secure setting indicated why they need a deep understanding of some complex ethical issues; therefore, an in-depth knowledge of medicines is necessary: “It’s not unusual to see some medications being given above and beyond the BNF (British National Formulary) limits”. And ethically, this presents a challenge to the MHN to consider the impact of the medication balanced as to why it is given: “When you’re looking at some of the service users that we get and the nature of their illness, especially the risks that they presented either to themselves or to the public, which means they need a medium-secure forensic setting. Sometimes it is in the best interest and that’s how nurses, I think, justify administering medication that could have a serious effect”.
Collaboration with other healthcare professionals

It has been declared that the MM in mental health care needs to be the business of all stakeholders (Health Care Commission-HCC, 2007). MHN participants gave examples how they interacted and liaised with other health care professionals (HCPs) in conducting the business of MM. In the inpatient setting, nurses use expert knowledge when collaborating with multidisciplinary team members: “We know the people [service users] more; we spend more time with them than they (doctors and pharmacists) do. So if you’ve got, kind of, a knowledge regarding the medication that can be used, you can always discuss with the service user how, and with the doctors and pharmacist, depending on how they present, how you see them”. People admitted to the PICU often have acute symptoms of mental illness; therefore, subsequent interactions with other HCPs are wide-ranging: “There’s a lot of multidisciplinary discussion, a lot more professionals are involved. There are a lot more discussions about how we best treat people”. Within a medium secure setting, iatrogenic physical health complications can arise from taking high doses of antipsychotic medication; therefore, a team approach is needed: “All that’s (monitoring side effects) carefully monitored and kept an eye on by the nursing and the medical team”.

Working with the pharmacist was also highlighted as a key feature of MM interventions. The participant from the early intervention service commented: “The pharmacist comes to the team meetings regularly. Particularly for under 18s, what medication they’re on; Lithium obviously, Clozapine; the monitoring of those things. It’s (prescribed medicines) monitored very closely”. Similarly, a participant from an adult inpatient setting stated: “The contact with the pharmacist is very important because they are the ones that usually pick the errors on the drug chart. They are the ones we refer to when we don’t understand what the doctors have prescribed or what the dose is. Sometimes, the patient comes up with questions that we can’t answer. We have to liaise with the pharmacist”.

Liaison with GPs and the primary care team was indicated as an important part of the MM role for the memory clinic nurse, particularly after an initial assessment they feel medicines need to be prescribed for people other than memory problems: “We can directly ring and write directly to the doctor and recommend appropriate medication.” The Admiral Nurse service, although having a principal role to support the carers also liaise actively with other HCPs such as the medical prescriber. This liaison with the GP involves use of their specialist medication expertise: “With antipsychotics, antidepressants, and quite a lot of anti-parkinsonian drugs. We will speak to GPs, ask for reviews, we’ll, advise them, because GPs quite often are very cautious with antidepressants especially and with anti-psychotics, with older people”.

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Discussion

The overall results reported in this paper show that MM interventions were a significant part of the MHN’s role of study participants. Secondly the service user presenting needs and contexts of care influences how these roles are employed. The findings indicate how MHNs applied underlying knowledge to their skilled interventions in MM. The four categories that were abstracted from the data indicate how the different facets of MHNs’ MM practice are employed.

The *medicines management in context* category showed, that irrespective of whether MM was part of routine interventions in inpatient service or specialist roles undertaken in the clinic or community settings, each participant reported it was an integral part of their role. Participants from the acute inpatient context stated prescribed medication was the intervention that had the greatest impact on achieving a beneficial outcome for service users. This finding concurs with previous research in inpatient contexts, where, according to service user participants, medication played a central role in them achieving therapeutic outcomes (Gilburt et al, 2011). For MHN participants in the present study who worked in inpatient settings for older people, administering medication was a complex and time-consuming activity, with a combination of psychotropic and physical health drugs being used, something already noted elsewhere (Baker et al, 2008). MHNs working in the community setting reported they adopted a more advisory and advocacy role with medication than their inpatient counterparts but still regarded MM as a core part of their interventions. While community MHNs have an important role in enabling service users to live as meaningful as possible lives in their recovery from mental illness, MM is an integral part of this role, and the nurse has an important role in ensuring optimal outcomes with medications (Gray et al, 2004).

In the *Time management* category, MHNs participants reported they spent significant amounts of time on medication related activities, particularly in inpatient settings where some reported between a quarter to one-third of their time was spent on these initiatives. This time commitment is not as great as the 40 per cent figure suggested by some commentators (Armitage and Knapman, 2003), and concorded more with the 22 per cent nurses actual contact with service users found by Whittington and McLaughlin (2000). This finding shows that MM is a prominent intervention for MHNs in this context (Rungapadiachy et al, 2004; Hemingway et al, 2011). For participants working in other settings in the present study, the time commitment varied and was dependent on other influences, such whether they had a specific role in titrating and monitoring medication for example the memory service and service user need.

The *knowledge* and *skill* category showed how MHN participants incorporated medicines related knowledge within their interventions with service users. For a participant in the inpatient acute context, this was shown when they used their psychopharmacology knowledge to recommend to psychiatrists to prescribe a particular medication that would be
beneficial to the service user. The nurse's influence in the prescribing of medicines has been recognised in other studies (McCann and Clark, 2002; Jutel and Menkes 2010), and is one of the drivers for the addition of non-medical prescribing to the MHN's role (Hemingway and Ely, 2009).

For inpatient settings for older service users, the complexity and number of medications, or polypharmacy, is significant due to increasing chronic disease that occurs in with ageing (Baker et al, 2008). The interrelationship between physical and mental health for older people is well known and there is a clear link between how the morbidity of a chronic health problem can for example cause someone to be depressed or anxious (Wattis and Curran, 2013). Prescribed medication for physical health problems can induce confusion or altered mental states; likewise, psychotropic medication can interact adversely with these medications. Therefore, it is essential MHNs have a thorough understanding of the complexity of the effects of medications on mental states and of drug interactions (Wattis and Curran, 2013). This was evidenced in the present study when the nurse working in the memory clinic used expert knowledge of cholinesterase inhibitors to inform carers and service users about the side effects of these medications. The MHN's role and expertise in memory services is increasingly recognized (Grant et al, 2006; Higgins, 2008; Oldnow et al, 2010), and the present findings how the MHN participants implement knowledge and skill based interventions to try to achieve optimal therapeutic outcomes.

The need for a sophisticated pharmacological knowledge of antipsychotics and its potential side effects was seen as a fundamental principle by participants in this study, indicating the need to go beyond the act of administering medication as recognized elsewhere (Hemingway et al, 2014). There are also associated ethical issues associated with high dose prescriptions where the MHN needs to balance the risk of side effects with perceived therapeutic benefits of medication. Clinical reasoning when high doses of antipsychotic are involved needs a critical approach and underpinning this a deep knowledge of side effect potential indicated by findings in of this study and elsewhere (Royal College of Psychiatry-RCP, 2006; Baker et al, 2008).

The collaboration with other HCPs category illustrated how MHNs liaise with other key stakeholders about service user outcomes. In the inpatient acute context, the MHN participant felt it was their knowledge and observations that formed the basis of their interactions with service users, psychiatrists and pharmacists. Evidence of collaborative practice was also found elsewhere where an approach is necessary to ensure clear communication and to keep service users informed about their prescribed medications (Duxbury et al, 2010). One participant, whose clinical context was a PICU, reported that MHNs were engaged in wide ranging discussions with other HCPs involved in treatment decisions about the prescription of high doses of antipsychotics is considered. Such discussions need to place emphasis on the
risks and benefits to service users (RCP, 2006; Baker et al, 2009). The important role of pharmacists is also emphasized in the U.K. report *Talking about Medicines* (HCC, 2007), which recommended that pharmacists should be used as a resource about medications; the present study provides evidence of how participants utilised them in all aspect of their MM practice.

The memory clinic nurse uses a shared protocol where the transfer of the management of cholinesterase medication goes back to the service user’s GP once it has been successfully introduced as evidenced in this study (National Institute of Clinical Excellence, 2011). The Admiral Nurse participant showed how they used medicines management knowledge and expertise to advise GPs as dementia treatment is a specialist area of practice. Consultation with carers was also identified as one of the ways the Admiral Nurse utilises their therapeutic skills, in advising carers about the appropriate use of psychotropic medications for the person with dementia (Burton and Hope, 2005).

**Conclusion**

The MHNs role involves MM interventions as evidenced in this article in a multiplicity of situations where the use expert knowledge and skills in clinical practice are needed appropriate to care setting and service user and or carer need. The present time in the UK and other areas of the world is very challenging for the MHN to show they make a meaningful contribution toward improved health and social care outcomes. Thus highlighting competent and recovery focused MM interventions by MHNs in various care contexts from this study increases the knowledge known about the MHN role within the prescribing process. This area is also one aspect of care where the nursing role needs further research as psychotropic medication although a mainstay of treatment in mental health settings is becoming questioned as to its long-term efficacy versus short-term use. Having informed choice toward medicines that are prescribed is a fundamental right as well as a practical need for the person prescribed psychotropic medication. MHNs if they use their MM knowledge and skill to the optimum can help the service user manage the medication they are prescribed so that it can contribute positively toward their health and well being as well facilitate understanding and involvement in this aspect of care.

**Acknowledgement**

Thanks are given for the time and commitment shown from those nurses who took part in this study.
Key Points

- Mental health nurses spend significant time on medicine management interventions.
- These interventions are focused upon service user need and context of care provision.
- Medicines management involves the MHN utilising complex knowledge and skills.
- Communication with all stakeholders in the prescribing process is key to successful health and social care outcomes.
- Medicine management training and education should not be marginalised but rather be seen as topic that needs as much emphasis as any other intervention used in mental health care.

References


White J, Hemingway S, Stephenson J (2013) Training Mental Health Nurses to Assess the Physical Health Needs of Mental Health Service Users: A Pre- and Post-test Analysis. *Perspectives in Psychiatric Care* ISSN 0031-5990