CONTENTS

In This Issue

In the issue (Volume 13 Issue 2) we present an interesting range of articles. First, we need to advise that our change to a publish when ready journal continues but we are still in phased transition based on software and technical issues. Apologies to authors and readers for these delays and we hope to be fully functional by the third issue this year. The Editorial in this issue Deals with the issue of the UN approach to sustainable Development Goals (SDGS) and how best to address health challenges resulting from factors associated with the impact of socio-economic determinants of health (SOEDoH). It raises the question of the managerial role in these contexts.

The first article is by Parmis Aminian and colleagues present us with research on dental emergency attendance at an Australia tertiary children's hospital. The aim was to identify the rate of dental emergencies according to age groups, genders and Indigenous status the major reasons for dental emergencies were infection and trauma. The most common age group was children between 3 to 6 years old. In this age group, boys attended more than girls due to dental injury. Although there were equal presentations of dental infection and dental trauma cases, dental infection cases mostly required hospitalization and treatment under general anaesthetic.

Lloyd and colleagues present a research article 'The Ingredients for Innovation: Impacts for Practice and the Education of Health Service Managers', following a synthesizes of the findings from the literature and they have drawn inferences to determine the ingredients for innovation, the role of HSMs in successful innovation and to promote discussion among practitioners and educators. They conclude that future graduates must understand the pivotal role of innovation in our health care systems and further develop the generic capacities that will enable them to influence and enable innovation.

Neil and colleagues present a review article about the increasingly critical issue of health literacy. They describe the context and the evolution of health literacy as described in the literature. They present a comprehensive approach to their subject which will produce useful guide to all health professionals. How are continuous quality improvement (CQI) approaches used in evaluating

Onnis and colleagues provide a review article by asking the question – 'How are continuous quality improvement (CQI) approaches used in evaluating management development programs?' The authors examined the characteristics of studies that use CQI approaches.to evaluate management development programs; and to synthesise the findings to understand how CQI approaches are being used to evaluate the effectiveness of management development programs.

Donovan and colleagues in an analysis of management practice examine the role of service navigators in the workforce: an ethical framework for practice. A four-domain framework is developed the conclusion is that a navigation framework is critical for practice guidance and to ensure service navigators and organisations have the capacity to meet the needs of service users and their families.

Our final article represents a milestone for the Journal and for the author. This is the first article written by an author from Bhutan about the Bhutan Health System. The author Dolley Tshering is also set to finalise his master by

research degree at Naresuan University College of Health Systems Management (NUCHSM) and has met all the requirements for graduation and is the first student to do so from this relatively new College. I hope you read and enjoy the article from Dolley based on his research findings.

Finally, please also enjoy our Library offerings from Yaping Liu our Librarian and Production Manager.

David Briggs

Editor

Editorial

The roles of managers in addressing Sustainable Development Goals and addressing the burden of chronic disease

One of my colleagues, [1] a student from Bhutan at the Naresuan University College of Health System Management (NUCHSM) Thailand recently presented her research findings about childhood obesity in Bhutan that included a finding that health managers had a responsibility to ensure that services addressed this significant health issue. That their staff, policies and resources available were addressing this issue and that their local communities were aware and well informed and engaged in addressing this worldwide challenge. This research is yet to be published but this connection with the management role and responsibility resonated with me as an important finding and recommendation.

It did so both in terms of management accountability but also in broader concepts of what our expectations of the modern managers role is and perhaps where it should be. It also reminded me about where Australia stands in the management of chronic diseases and in utilising the UN Sustainable Development Goals (SDGs) initiative. Finally, I ask is this a reasonable approach for managers to become more involved in addressing the negative health impacts implicit in many of our communities arising from socio-economic determinants of health (SOECD)?

All too often we see the leadership of managers focussed on organisations and pre and centrally determined range of services that are consistently delivered across Australia. All too often these services might have a 'hub and spoke' type level of delivery. The further away from the hub the increased propensity for poorer access through both considerations of equity of access of marginalised groups, the tyranny of distance, transport access and an inadequate professional health workforce.

Developing countries know these challenges well and are shaping their research, programs and collaborative engagement across sectors to address the UN SDG challenge. [2] In Australia, similar challenges exit, particularly in rural and remote and regional centres. Might we see potential in engaging managers together with researchers, providers, health professionals and communities in specific community-based projects?

The 17 Sustainable Development Goals (SDGs) are said to

> 'form a roadmap for global development efforts to 2030 and beyond. The Sustainable Development Goals, together with the Addis Ababa Action Agenda on Financing for Development (a global plan for financing the Goals) form the 2030 Agenda for Sustainable Development. There are 169 targets within the Sustainable Development Goals and each goal has a set of indicators to help measure progress'. [3]

The main SDG that impacts on health and wellbeing is SDG3 that is meant to 'ensure healthy lives and promote well-being for all at all ages.' Commonwealth responsibility for this SDG rests with the Department of Health. The recent Report on the Implementation of the Sustainable Development Goals 2018, United Nations High-Level Political Forum on Sustainable Development 2018 for the Australian Government is at

https://www.sdgdata.gov.au/about/voluntary-national-review

'Many Australians are familiar with the concept of sustainable development but may not be aware of the SDGs and their universal nature. Some national and local institutions and organisations have adopted the SDG framework and integrated them into their policies and budgets'. [3, P.12] All SDGs are in some respects inter-connected and have some broader implications for health systems and the health of local communities. the SDGs provide a framework through 'which governments, businesses, organisations and individuals can conceive of a problem or objective and devise action to drive progress'. [3,p.15] According to the Report

> 'a lot of organisations are seeing the power of the SDGs as a holistic framework and approach to environmental health, human wellbeing, economic sustainability and long-term profitability. The SDGs provide a tool for organisations to identify and mitigate risk and opportunity, including in areas they might previously not have seen as linked to core business'. [3,p.18]
>
> 'For some, the SDGs present a new lens through which organisations can approach their strategic planning, projects, programs and a recognisable global platform to guide collaboration with others.' [3,p17]

Ensuring healthy lives and promoting well-being at all ages is SDG 3 and is the specific but not conclusive health service SDG. The Australian National SDG review indicates there is more to be done:

> 'While there are positive signs and progress on many fronts, it is clear that Australia is not healthy in every way, and some patterns and trends give cause for concern. Chronic diseases … are becoming increasingly common in Australia due to a population that is increasing and ageing, as well as to social and lifestyle changes. … Presenting a broad picture of health status can mask the fact that some groups in our community are not faring as well, including people living in rural and remote areas, the lowest socioeconomic groups, Indigenous Australians and people living with disability.' Australian Institute of Health and Welfare, Australia's Health 2016 [3 p.32]

It seems to me that there is a lot of good material in these Reports that suggests there is much to done. A lot of activity seems to be occurring at national state and organisational levels in public and private sectors across Australia. It brings me back to my colleagues view that managers have a responsibility in addressing the chronic burden of disease based SOECD and through the attainment of SDG 3. Particularly at the local level how might managers be more effective in progressing local achievement.

In the context of Thailand they are working at the local District Health Service Level to strengthen management capacity at that level, to establish a health district learning network between DHS staff and management together with the health systems academic/research faculty. They are taking participatory, collaborative action-based approaches. They want to achieve a common vision and agreed strategic approaches, capacity building to ensure a well trained health workforce, through collaborative action research, shared learning all to achieve better PHC focussed on progress in achieving SDG3. [2]

The Australian 2018 Review of SDGs clearly demonstrates the potential for action at local organisational and community levels to utilise the SDGs for improved performance. Are our health managers up to the challenge?

DS Briggs

Editor

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Dental Emergency Attendance at an Australia Tertiary Children's Hospital

PARMIS AMINIAN; ESTIE KRUGER; JOHN WINTERS; WENDY NICHOLLS; MARC TENNANT

The University of Western Australia
35 Stirling HWY, Crawley Perth Western Australia 6009, Australia

Correspondence: parmis.aminian@uwa.edu.au

Abstract

Objective: Objective: Dental emergencies are a significant impact on the health system. The resource needs are complex and consume services in the tertiary health sector. It is important that we examine the reasons and types of attendances to look for ways to mitigate this demand. The aim was to identify the rate of dental emergencies according to age groups, genders and Indigenous status.
Method: A retrospective analysis of dental emergencies at the Princess Margaret Hospital (PMH; tertiary children hospital in Perth) was performed.
Setting: *The study included data from hard-copy files of patients admitted to the PMH.*
Main outcome measures: Main outcome measures: The records of 239 children who attended the PMH in Perth with dental emergency problems during the first 3 months of 2017 were analyzed.
Findings: The major reasons for dental emergencies were infection and trauma. The most common age group was children between 3 to 6 years old. In this age group, boys attended more than girls due to dental injury. Although there were equal presentations of dental infection and dental trauma cases, dental infection cases mostly required hospitalization and treatment under general anesthetic.
Conclusion: While some dental emergencies are unavoidable, increasing awareness about dental hygiene, regular checkups and early dental treatments in children could decrease emergency visits and prevent conditions such as dental infections.

Keywords: dental emergency, children, Western Australia

INTRODUCTION

In the developed world, the dental health of children has substantially improved, over the last 50 years. [1] Today, in Australia (and most states including Western Australia), for example, the average number of decayed or treated teeth in 6-years old is near one, and prevalence of any dental caries has been reported as less than 40%. [2] Notwithstanding this massive improvement in oral health, there continues to be a small and intractable number of children that suffer dental disease. In Western Australia, even with a universal coverage School Dental Service (free of cost), hospital admissions for dental conditions continue to be a substantial burden on society. [2] Previous research has found dental

conditions to be the 5th and 6th most common cause of a hospital admission for a primary and secondary school-aged child in Western Australia (WA) respectively. [3] Against this dichotomy of substantially good oral health overall is an ongoing small, but significant level of hospital episodes caused by dental caries. It is important that an understanding be gained of the case histories of patients attending for in-patient emergency dental care. In Western Australia, there is a single primary site for emergency dental care involving the use of general anesthesia; the jurisdictions only children's hospital, Princess Margaret Hospital (PMH) in Perth (the capital of the State of Western Australia). The vast majority of caseload (estimated at over 85%) is accepted for care through this facility. The aim of this study was to analyse the demographic profile, primary reasons for attendance, and if treated as an in- or outpatient for cases attending for emergency dental care at PMH.

METHODS

Ethics:

This study was a retrospective record analysis of children with dental complaints who visited the PMH emergency department during the first 3 months of 2017.

The data were obtained from hard-copy files of patients after creating the GEKO audit Quality Activity (number: 14390).

The following information was collected: age, gender, Indigenous status, presentation in ED, date of dental treatment, the primary reason for presentation (facial Injury, dental infection, etc.), In-patient or Out-patient treatment, and whether a patient independently attended ED or by a referral from elsewhere. This study was not designed to examine the specific diagnostic cause or precise treatment plans but focused on the principal reason for attendance and primary treatment pathway.

Statistics were then derived from the data set. Standard quantitative analyses were conducted by using Excel formulas (Microsoft Redmond USA). IBM SPSS version 23 (IBM, New York, NY, USA) were used to determine significance of differences in proportions of independent samples by using Pearson's chi-square tests. As the number of cases in some of the subgroups were very small, statistical analysis were limited.

RESULTS

This study reviewed a random sample of records (n=239 40%) from the first quarter of 2017.

Patient demographics

Of 239 patients, there were 128 boys (53.6%) and 111 girls (46.4%). Of the 239, 12% were of Aboriginal and Torres Strait Islander descent (Indigenous people of Australia) and 3% were refugees (Table 1).

	Refugee(%)	ATSI(%)	Other(%)	Total(%)
Female	2 (1.8)	13 (11.7)	96 (86.5)	111 (100.0)
Male	5 (3.9)	15 (11.7)	108 (84.4)	128 (100.0)
Total	7 (2.9)	28 (11.7)	204 (85.4)	239 (100.0)

Table 1. The number and percent of patients of different demographic groups attending for care.

Ages ranged up to 16 years old (the limit of entry for this hospital), with an average of 5.9 years. Peak attendance for females and males was 5 years old, with three quarters of attendance for those under 7 years and 8 years for females and males respectively (Table 2).

The reason for attendance differed with age, whilst overall attendance was about a third infants, a quarter preschoolers, and a third primary, and the remaining being secondary school students (Table 3). The reasons for attendance for infants included infective causes (a quarter), whilst for preschoolers this

was over three quarters (with females being over 80%). For primary school ages about 60% of females attended for infective causes, while only 44% of males attended for the same reason (Table 3).

Among Indigenous patients, 57.1% attended due to infective conditions and 42.9% because of injury. In the Non-Indigenous group 47.9% attended due to infective conditions, and 52.2% due to other conditions (Table 4). The differences in proportions between Indigenous and non-Indigenous patients attending for injury and infections were not statistically significant in both instances ($P<0.05$, Pearson chi-square). It indicated that the predominant reason for attendance in the dental emergency department among Indigenous children was for dental infections, while the most frequent reason for non-Indigenous children was Injury. The only reason for attendance among the refugee patients was for dental infection, but the total number was low.

Presentation and admission

The majority of patients (n=136, 57%) presented directly to the hospital. More than half of children (n=157, 66%) were admitted and treated as an in-patient, while the remainder (n=82, 34%) was treated as out-patients. The majority of patients who attended due to dental infection were treated under general anesthesia as in-patients (n=103/117, 88%). On the other hand, less than half of patients (n=54/117, 46%) who attended for trauma (or other dental conditions such as frenulum entrapment, viral stomatitis, eruption haematoma) needed to be treated under general anesthesia (Table 5).

Reason for Presentation

The main reasons for patients to present were dental infection and trauma. From the total 239 patients, 49% had tooth infections or abscesses, 49% had experienced trauma, with the remaining attending for other dental problems (Table 5). There was a difference in reasons for attendance at different ages (Figure 1). For ages below 3 years, trauma was the primary reason for attendance, whilst from 3 years through to 9 years, infective issues were the primary reason, and then for those above age 9 trauma returned to the fore (Figure 1).

DISCUSSION

This retrospective study assessed the demographic of children attending for in dental emergencies at PMH.

The results revealed that dental infection and trauma were the major causes of dental emergency visits (98% all together). Furthermore, two thirds of patients (65.6%) who were treated as in-patients had dental infection (Table 5). In summary, the most common cause for dental hospitalisation was dental caries or abscesses. Previous studies have reported that dental caries are the most common reason of oro-dental related hospitalisation in children. [3,4,5,6] The children who needed general anesthesia for treatment were treated for infection related problems. Tertiary care from dental sources is a result of conditions that can be intercepted and treated as out-patients or in the community.

According to a previous study in Western Australia, about 95% of the dental hospitalisation cost was spent on non-Indigenous children. [7] In the present study, the numbers of non-Indigenous children who attended were more than that of Indigenous children. However, when adjusting for total population, Indigenous children appeared over-represented in infective causes. Particularly considering that most Indigenous people live outside of major city areas, and only a third (34.8%) of all Indigenous people lived in major city areas. In contrast, almost

three quarters (71.3%) of non-Indigenous people lived in major city areas. [8] Moreover, Indigenous people often use Indigenous community health services. [9,10] As a result, providing dental emergency services in Indigenous community centers may be a valuable strategy to prevent dental disease as well as decrease the frequency of emergency attendance at the tertiary hospitals.

A previous study has reported that males experienced dental injuries more often than females. [11] The present study found similar results, with the male to female ratio being 1.25:1. It also found that the most common age group attending the emergency department because of dental injury was those under the age of 3 years old. Young children needing emergency treatment may pose a challenging treatment situation for both patient and dentist in the community setting, and thus was not an unexpected finding.

CONCLUSION

It is important to focus on preventive dental care for children in order to decrease dental infections that require emergency treatment. It can result in beneficial outcomes, such as a reduction in the load of emergency services, emergency staff pressure, waiting times in emergency departments, and also lower government costs providing these services. Therefore, strategies proposed should include dental preventive services, and efforts to improve the awareness of parents regarding the importance of dental hygiene in children, and early treatment of dental disease before emergency treatment becomes necessary. Dental hygienists employed in community centers, childcare centres and schools can implement preventive and effective programs to achieve this purpose. More research is needed to identify the most effective and appropriate strategies enable to achieve these goals.

Table 2. The age (years) distribution of patients attending for care

	Female				Male				All
Age	Refugee	ATSI	Other	Total(%)	Refugee	ATSI	Other	Total(%)	Grand Total
1		1	12	13(11.7)		1		1(0.7)	14
2			9	9(8.1)			12	12(9.3)	21
3		1	10	11(9.9)		2	16	18(14)	29
4		1	13	14(12.6)		3	13	16(12.5)	30
5	1	3	16	20(18)	1	2	16	19(14.8)	39
6		3	8	11(9.9)	1		10	11(8.5)	22
7		1	5	6(5.4)	1	1	9	11(8.5)	17
8		1	7	8(7.2)	1	3	4	8(6.2)	16
9		1	8	9(8.1)			6	6(4.6)	15
10	1	1		2(1.8)		1	4	5(3.9)	7
11			3	3(2.7)			6	6(4.6)	9
12			2	2(1.8)			6	6(4.6)	8
13			1	1(0.9)	1			1(0.7)	2
14			1	1(0.9)		2	3	5(3.9)	6
15			1	1(0.9)			3	3(2.3)	4
Total	**2**	**13**	**96**	**111**	**5**	**15**	**108**	**128**	**239**

	Female			Male			All
	Infective	Other	Total	Infective	Other	Total	Total(%)
Infant(0-3years)	8	25	33	11	36	47	80(33.5)
Pre-School(4-5years)	28	6	34	23	7	30	64(26.8)
Primary(6-12years)	25	16	41	19	24	43	84(35.1)
Secondary(12-16years)	1	2	3	2	6	8	11(4.6)
Total (All)	62	49	111	55	73	128	239(100.0)

Table 3. The age distribution (clustered) by reason for attendance.

Condition	Infection(%)	Injury(%)	Other(%)	Total(%)
Indigenous	16(57.1)	12(42.9)	0(0.0)	28(100)
Non -Indigenous	101(47.9)	105(49.8)	5(2.4)	211(100)
Total	117(49)	117(49)	5(2)	239(100)

Table 4. The distribution of reason for attendance for Indigenous and non-Indigenous patients

Condition	IN Patient(%)	OUT Patient(%)	Total(%)
Infective	103(65.6)	14(17.1)	117(49)
Trauma	54(34.4)	63(76.8)	117(49)
Other	0(0.0)	5(6.1)	5(2)
Total	157(100)	82(100)	239(100)

Table 5. The mode of treatment for patients with different presenting complaints.

Conflicts of Interest: NIL

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ACHSM Australasian College of Health Service Management

The Ingredients for Innovation: impacts for practice and the education of health service managers

SHEREE LLOYD; SARAH LOW; SU LEI WIN; GERARD FITZGERALD; CYNTHIA CLIFF; JEAN COLLIE

Sheree Lloyd B. Bus(Computing), MTM, PhD Candidate (QUT), Assoc Dip, MRA, Dip Govt, Dip Project Management AFCHSM, CHIM.

Sarah Low Master Health management, Bachelor Health Science (HIM) (QUT, PhD candidate (Utas)).

Su Lei Win MBBS (Ygn), Master of Health Service Management MBBS

Gerard Fitzgerald MB BS, BHA(NSW), MD (QLD) FACEM FRACMA FCHSM
Cynthia Cliff BSc(Hons), PhD, ARACI, Grad Dip Env Stud, Grad Dip Outdoor Ed, Grad Dip Bus Mgt, GAICD

Jean Collie MB BS (UQ)
MHP (NSW) FRACMA, FAFPHM

Correspondence: s.lloyd@griffith.edu.au

Abstract

Background: Innovation is associated with improvement, however, there is little published about the 'ingredients' for successful innovation in healthcare, and the skills required of Health Service Managers (HSMs) who facilitate change in their organisations.

Aim: This paper synthesizes the findings of a literature review performed to describe the organizational and contextual factors that enable and sustain innovation in healthcare settings. Implications for the practice of Health Service Management and curriculum development have been extrapolated as innovation has been identified as a solution to escalating health system demands in a rapidly changing environment.

Approach: A literature review used a systematic approach to source articles from the Scopus and Emerald databases over the period of 1993 to February 2016. Papers were also retrieved from a BMC Health Services Research weekly alert. Snowballing from relevant articles identified additional and significant papers. Grey literature, peer-reviewed papers and reports were similarly reviewed to incorporate contemporary perspectives on this topic across the business, health and University sectors, and to facilitate discussion of the skills and competencies for HSMs practice and education in relation to this topic.

Context: Innovation is crucial to the sustainability and viability of Australia's world class health system. There is potential for innovation to lead to more cost-effective and efficient ways to address the challenges of limited health budgets and increasingly complex morbidities in an ageing population.

Main Findings: Successful innovation according to the literature, is determined by a complex interaction of determinants including organizational culture, support and resourcing for innovation, leadership and a clear and

shared vision. An organizational culture supportive of innovation includes strong transdisciplinary communication, engaged and invested staff and recognition of the role of innovation in health improvement and outcomes. A setting that is open to identifying, testing and evaluating initiatives for innovation requires capabilities to establish and maintain the working relationships, team dynamics and to prioritise resourcing to facilitate and sustain new ways of working, services, products or technologies.

Recent research on the skills required for health service management employability and career success was also examined and identified the importance of skills such as communication, creativity and problem solving. These skills are critical and linked to the role of the HSM in accelerating innovation in their organisations.

Conclusion: The key ingredients for successful innovation in health were inferred from the literature. HSMs are well positioned to support innovation as they possess the necessary technical and professional skillsets. The literature suggests that the development of graduate skills in the areas of communication, problem solving, and team work is critical to meet industry needs and for HSMs to enable innovation.

Universities educating health service managers strive to ensure that graduates are professionals equipped to lead and manage health services. HSM graduates can foster the organizational and contextual factors that sustain and sanction innovative ideas to flourish and progress to implementation. Current research advocates that strong industry and higher education collaboration is important to further develop the graduate attributes necessary for innovation.

Keywords: performance, innovation, education, technical skills, generic skills

INTRODUCTION

Delivering cost effective, responsive and safe health services is critical for the funders, providers and the consumers of healthcare in Australia. A healthy population is also essential for the prosperity and economic well-being of the country. Australian health settings face many challenges in coping with the volume of services they provide, changing consumer requirements and the types of health problems experienced. Consequently, health service managers perceive that innovation and the implementation of new models of care, practices, information communication and technologies can be identified, adapted and sustained to ensure the future viability and safety of our health care system.

BACKGROUND

Australia's health system is acknowledged as performing well when compared to similar countries and economies and accomplishes these relatively efficiently and cost effectively. [1] However, there is scope for reform at the macro and micro levels of the Australian healthcare system. [2, 3].

The Australian Government's Productivity Commission stated that there are a range of

'within system' reforms that can improve health outcomes. These include accelerating creation and diffusion of effective care delivery innovations. [4] The Productivity Commissioner's more recent report of 2017 notes that it is important to focus on 'ways of encouraging devolved innovation, experiments and diffusion of evidence-based healthcare and administration'. [5] A major report by the Department of Industry, Innovation and Science [6] linked innovation to Australia's future prosperity and a means to navigate a rapidly changing future.

International bodies identify that healthcare performance and improvement are dependent on the quality of health professionals managing the healthcare organisation and innovation features on agendas of government, industry and universities in Europe, United Kingdom and the United States. [7,8]

Health Workforce Australia communicated in their LEADs framework that health leaders should 'drive innovation' and contribute to the 'spread of innovation' through initiation, momentum for change and system improvements. [9]

Health Service Managers in Australia are educated in the higher education sector and complete programs that develop technical, professional and generic skills in their graduates. Recent studies of graduate and industry employers in Australia reflect the importance of generic skills and a requirement for capabilities such as creativity, problem solving, communication, collaboration, self-management and teamwork. [10,11] Innovative thinking in health service management post-graduate courses in Australia was examined in a study by Isouard, Martins, & Friedman. [12] Whilst acknowledging limitations, their study indicated that innovation, creative and innovative thinking did not feature prominently in the courses they explored. The authors urged that the best location and means of delivery for enhancement of these skills, such as professional development or mentoring programs or gained through training in the workplace be considered. [12]

This paper synthesizes the findings from the literature and has drawn inferences to determine the ingredients for innovation, the role of HSMs in successful innovation and to promote discussion among practitioners and educators.

METHODS

A review of the literature was conducted identifying articles from Scopus and Emerald databases. The snowball method identified significant articles and a weekly alert from BMC Health Services Research recommended relevant papers for review. As an emerging topic the grey literature and government reports were also appraised. Papers were screened, evaluated for their contribution and grouped in to the themes to form the basis for the following discussion.

Additional papers on the skills and competencies for health service managers were sourced to support the discussion on the application of the findings for practice and educational purposes.

FINDINGS

Innovation in health care defined

Many definitions for innovation appeared in the literature and the topic is complex. Greenhalgh, Robert, Bate, Macfarlane, & Donaldson, [13] in a systematic literature review defined innovation in health service delivery and organization as 'behaviours, routines and ways of working, along with any associated administrative technologies and

systems'. Further these innovations must be perceived as new by stakeholders, linked to the support or provision of healthcare, and aimed at improving administrative efficiency, health outcomes, cost-effectiveness, efficiency, patient or carer experience and implemented by the action of individuals, organisations or teams. [13] Omachonu & Einspruch, [14] define innovation in health as 'the introduction of a new concept, idea, service, process, or product aimed at improving treatment, diagnosis, education, outreach, prevention and research, and with the long-term goals of improving quality, safety, outcomes, efficiency and costs'.

From the wider literature, Damanpour [15] defines innovation as the 'generation, development, and implementation of new ideas or behaviours'. Furthermore, innovation is a means of changing an organisation and can be broadly defined to include types of innovations that might be new products or services, new process technologies, new organisational structures or administrative systems, or new plans or programs. [15]

Gault, [16] proposed a general definition of four types of innovation. A product innovation is new or significantly changed with respect to its characteristics or intended uses. A production or delivery innovation is the implementation of new or significantly changed delivery or production processes. While marketing/communication innovations are the implementation of a new or changed method of promoting the products of the organisation. Finally, organisational innovations are new or changed methods in business practice, workplace organisation or external relationships.

Healthcare innovation determinants to identify, sustain and disseminate innovation

To effectively identify, sustain and disseminate innovation requires a multi-faceted approach and is the result of many antecedents and determinants. [17,18,19] Innovation success or failure can be influenced by management support for the innovation, appeal of the innovation, size of the organisation, positive organisational culture, organisational learning, effective leadership for innovation and performance and teamwork. [17,18,20,21]

Crossan & Apaydin [21] describe leadership, managerial levers and business processes as determinants of innovation as well as impediments to innovation such as conflict, lack of infrastructure, and external disruption. In a systematic review of the literature, Crossan & Apaydin, [21] identify organisational determinants such as professionalism, organisational structure, strategy, organisational learning, positive climate and financial resources as determinants of innovation in the existing research. Their study resulted in a multi-dimensional framework of organisational determinants of innovation grouped at the environmental, organisational and group levels. [21]

Innovation can be transformational, but most innovations are combinations of elements that already exist. According to Salter & Alexy [22] incremental, ongoing, smaller innovations can have significant impacts. Rao & Weintraub [23,24] highlight that resources, processes and measurable performance outcomes often receive more attention than the crucial 'people oriented determinants of innovative cultures' such as values, behaviour and organisational climate which are often difficult to measure.

To sustain innovation Fox, Gardner, & Osborne, [25] suggest a framework around five factors that include innovation specific, workforce, organisational, political and financial factors. Clear communication, financial support, education and staff training, appropriate 'organisational fit' of the innovation, staff involvement in the implementation and decision-making around

the innovation will determine sustainability. [25]

Greenhalgh and her colleagues [26] and [13] created a unified model from their synthesis of the literature and identified that to diffuse innovations in health services a complex interplay of system antecedents, readiness for the innovation, the 'innovation itself', leadership, vision, resourcing and organizational climate is required.

Determining if innovations will succeed or fail depends upon many 'moving parts' and is reliant upon the implementation context and the approaches utilized to reinforce an innovation. [20]

HSMs and their role in healthcare innovation

Martins & Isouard, [27] discuss a comprehensive framework of predisposing, enabling and transforming competencies for health service management with innovative thinking, relationship building, effective communication and interpersonal understanding among the key skills identified.

Melder & Killion [28] highlighted the need for health care leadership and policy makers to support system wide innovation and redesign in healthcare, citing the 'significant and consistent' evidence in the current literature. The role of HSMs they outlined is to provide motivational leadership towards improvement strategies aligned with a vision and investment in staff and resources for 'transformational change. [28]

Clinicians wanting to improve patient care and adopt innovation can drive innovations within a health care organization and the drivers for innovation in healthcare can be internal or external. Innovation can be driven by the need for reform and change compelled by the consumers of healthcare, internal/external stakeholders, government policy, accrediting bodies and legislation.

Health Service Management graduates across Australia are educated in the higher education sector in management, leadership, project management, financial management and health informatics. Australian universities seek to develop in their graduates a number of attributes such as communication, collaboration, intellectual enquiry and analytical skills, lifelong learning, effective and capable in diverse and international environments, innovative, creative with discipline specific knowledge and skills. [29,30,31] Nevertheless, in a study that reviewed 13 postgraduate courses in health management across Australia, Isouard and colleagues [12, p266] found that innovation, creative and innovative thinking were not prominent in course content despite the 'importance of this management competency to deal with a changing environment and health services practices'.

The Australian College Health Service Management Competency Framework identifies leadership, communication and relationship management, professional and social responsibility as key domains on which HSM education programs should be based and to guide the employment, management and mentoring of HSMs by employers and policy makers. [32]

Graduates prepared for a rapidly changing and technological world will require new skillsets. The most commonly mentioned skills for the future identified in education policy documents across 150 countries were communication, creativity, critical thinking and problem solving. [33]

A study on employability skills for HSM graduates by Messum and colleagues, [10] identified generic capabilities (communication,

intrapersonal and interpersonal, teamwork and collaboration) as most relevant to employment. Skills that were most valued were communication, teamwork, flexibility, open-mindedness, networking, priority setting, integrity and ethical conduct. [10] Other work by Messum et al [34] found that conceptual and analytical skills were regarded as important and that higher education is showing interest in generic skills because of pressure from employers. [35]

DISCUSSION

The thematic analysis of the literature identified the types and determinants for innovation. The findings of the literature review suggest that to maximise opportunities through innovation for improved processes, services, products or technologies that the right 'mix' of ingredients are required.

To ensure that the health system can provide comprehensive solutions into the future, new models of care, communication methods, processes, technologies and the creation of new connections and growing partnerships will be essential. Team building and the ability to collaborate and solve problems will be critical capabilities. Identification of information, technology and communication systems that facilitate and support health care professionals to perform their roles and provide the best possible care is necessary for innovative ways of working. Using information to determine where innovation can occur and to drive evidenced-based decisions will be critical.

Programs in health service management in higher education institutions equip their graduates with skills and knowledge in change management, leadership, project management, financial management and health informatics. Professional bodies in health service management also recognise the interrelationship between skills such as communication and relationship management, professional and social responsibility and business skills. [32]

Generic and technical skills are increasingly valued by employers with conscientiousness (being organized, responsible, hardworking) and interpersonal and intrapersonal competencies, the most highly correlated with career and educational outcomes. [36,37]

Graduating students with strong communication and interpersonal skills, self-awareness, planning, collaborative ways of working and desire for lifelong learning, open mindedness, ethical conduct and teamwork skills are important to health service managers that employ our graduates. [34]

Leaders through their vision and the setting of goals can enable innovation by creating a climate, providing the resources and promoting the organisational values that encourage innovation. Identifying areas for improvement based on data and using this to identify the causes of poor performance, quality and safety issues, opportunities to reduce waste, and reduce delays will stimulate innovation.

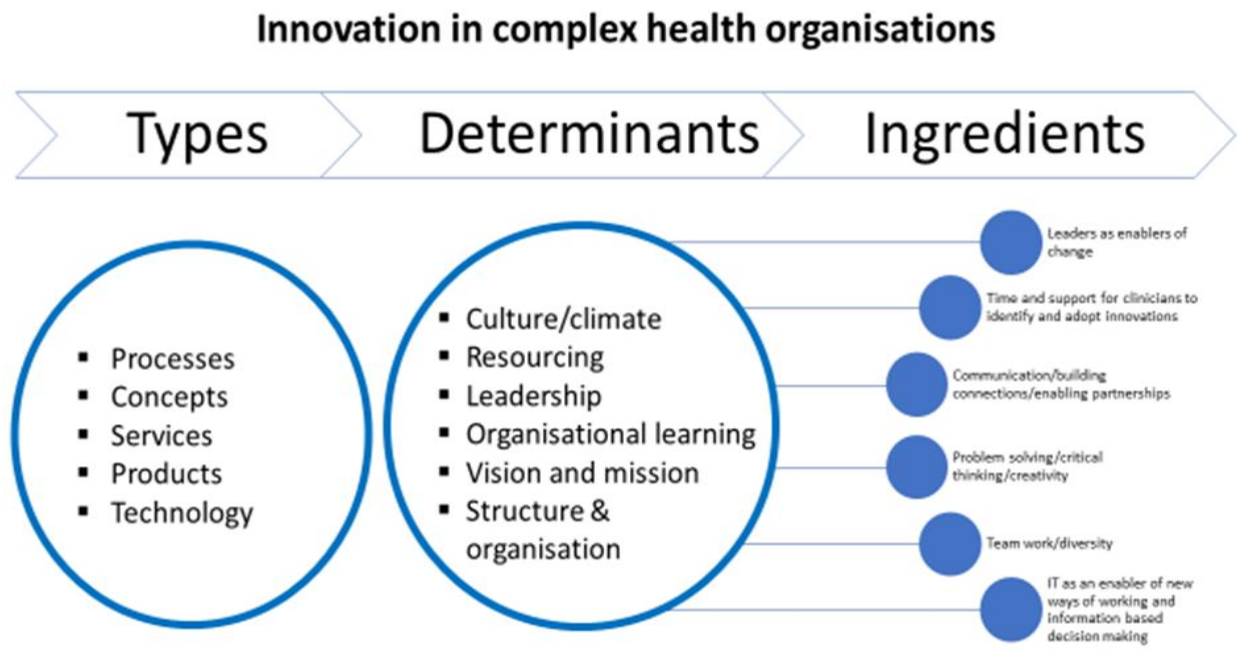
Health Service Managers play a vital role in setting the vision and strategy that guides the structure, allocation of resources, design and culture of an organisation that are critical for innovation. [38]

Identification of information, technology and communication systems that release health care professionals to perform their roles, provide time for thinking and creative problem solving and to provide the best possible care is necessary to identify and implement innovative ways of working. Health service managers can foster team building and use diversity within their organisations to solve the complex problems facing our health services. Applying generic capabilities and skills such as relationship building, problem-solving and communication will be key to accomplishing new ways of working.

Job ready graduates, prepared through engagement with challenging tasks, who are able to reflect on their learning and practice, and who have been exposed to realistic cases integrated into their learning will develop the problem solving and collaboration skills, required by health service managers to build cultures and environments where innovation can flourish. [37]

Messum et al. [10,34,35] propose that working partnerships between the higher education sector and the health industry to build real world challenges into assessments could better equip students for the changing workplace. Others recommend building employability skills through skills such as simulation, action learning and assessment linked to learning goals. [37,39]

Innovation adoption in health is complex with many antecedents and determinants identified by the literature review. Distillation of the findings indicate that health service managers for the future should leverage their generic and technical skills to support clinicians and managers to innovate. The literature review findings have been extrapolated and propose key 'ingredients' for innovation in health. This is shown in the diagram below.



LIMITATIONS

This study has some limitations, primarily the papers in this study were reviewed by one individual as part of their PhD candidacy. Multiple reviewers would provide further rigor to article selection and interpretation. Literature, specifically on health innovation is limited. Papers, through necessity were drawn from other industries where most research on this topic has been conducted. Healthcare is a unique industry, with many layers, parts and stakeholders working together to deliver care. Innovation could play out differently in settings depending upon the organizational and contextual factors evident.

Innovation is an emerging national priority in Australia and globally. Further research as to how health service managers can support and provide the climate and conditions for innovation in their organisations is encouraged. This would enhance the understanding to inform health service management programs and educators.

CONCLUSION

There are many ideas to improve and redesign health for better outcomes but 'spending more on the current system will generate more healthcare of the same quality' (Tomson 2009). Health service managers have an opportunity to support a climate for innovation, support and enable the introduction of new ideas, new models of care and new ways of working.

Future graduates must understand the pivotal role of innovation in our health care systems and further develop the generic capabilities that will enable them to influence and enable innovation.

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ACHSM Australasian College of Health Service Management

Evaluating Health Literacy Environments in Australian Health Services

SARAH NEIL, KYLIE MURPHY, GLENDA CHAPMAN

Charles Sturt University - School of Community Health, PO Box 789, Albury, New South Wales 2640, Australia

Correspondence: smneil2001@gmail.com

Abstract

The term 'health literacy' refers to the knowledge and skills used by an individual to make decisions about his or her own health. However, the environment in which health decisions are made is increasingly recognised as a critical component of health literacy. The health literacy environment can help to moderate the typical relationship between low individual health literacy and poor health. Becoming a more health literate healthcare organisation may require only meager financial investment for relatively large effectiveness gains. In this article, a review of Australian government health policies identifies three major foci relevant to the health literacy environment: the complexity of health services, the content of health information, and the physical environment. An overarching theme identified in this review is the importance of consumer input in evaluating all aspects of the health literacy environment. Despite major policy imperatives and the ongoing need to ensure health investments are socially equitable and cost-effective, there is little published evidence of Australian healthcare services evaluating their own health literacy environment. This article establishes the importance of evaluating the health literacy of Australian healthcare services and reviews four potentially useful evaluation tools.

Keywords: health literacy; environment; health service; evaluation; health policy; equity.

Evaluating Health Literacy Environments in Australian Health Services

Individual health literacy refers to all the skills involved in finding, understanding and using health information to make decisions about one's own health. [1] The health literacy environment draws on the health literacy of consumers by challenging them to interpret varyingly accessible information to access and benefit from healthcare. That environment comprises the healthcare system,

infrastructure, policies, processes, and employees. [1] Environmental health literacy can seem a relatively drab topic. However, cultivating a health literate environment is critical in enhancing health outcomes, reducing health disparities, and increasing the cost-effectiveness of health expenditure. [1]

The definition of health literacy has developed since it first appeared in scholarly literature. This review explores this conceptual evolution. The importance of the health literacy environment is then argued, based on its potential role in achieving major current Australian healthcare policy goals. It is argued that these goals are not only important reasons to improve Australian health literacy environments, but that they should also inform the way health literacy environments are evaluated. Considering current health policy goals, four potentially useful evaluation tools are briefly appraised.,

The Conceptual Evolution of Health Literacy

When the term 'health literacy' first appeared in academic literature in 1974, it was in the context of ensuring minimal standards of school-based health education. [2] The concept was expanded by the World Health Organisation (WHO) in 1981 [3] when it formally defined health literacy as '…an elementary understanding of nutritional and health needs and of how to prevent or control common health problems'. This definition remains relevant; while the term has since taken on a broader meaning, including recognition of relevant environmental factors. Although recognised by the WHO in 1981, it was not until the 1990's that health literacy began to regularly appear in scholarly literature. [3, 4] There was particularly strong engagement with the construct in the domains of public health, health education, health promotion and primary prevention. The 'public health' model viewed health literacy as an asset which can be influenced by education aimed at empowering patients and the public. [5] As early as 1990, researchers such as Glanz and Rudd called for health information to be tailored for patients with low literacy levels. [6] Later in the 1990's, especially in America, attention shifted to the poor health literacy levels of many patients. [5] This 'clinical' model viewed health literacy as a personal deficit linked to non-compliance with health recommendations. [7] In the decades that followed, the 'public health' and 'clinical' views both continued to attract the attention of health academics.

During the late 1990s and early 2000s, more attention was given to measuring and analyzing the relationship between health literacy and health. [8, 9] In Australia in 2000, Nutbeam published 'Health literacy as a public health goal' [10], heralding a resurgence of interest in health literacy as a public health issue. Shortly after in Washington, Ratzan [2] argued that access to new technology had the potential to advance health literacy, and Curran broadened the health literacy discourse to include verbal and online skills, as well as scientific, media, and cultural knowledge. [8] However, by 2004, based on the IOM definition of health literacy [11], the concept had extended to refer to health information, health care providers and larger structural systems. Awareness of the health literacy environment was slowly growing.

While there was continued measurement of individual health literacy in the 2000s, a shift was evident towards assessing healthcare providers and health systems in relation to health literacy, rather than only measuring consumer strengths and deficits. [7] A health literate organisation was defined as one which

actively maximised the accessibility of its health services and information. [4] In 2014, the report of the Victorian Consultation on Health Literacy recommended that the deficit approach, focusing solely on individual health literacy, should be avoided. [12] In recent years, there has been a call for more research to guide healthcare systems, health service managers, and practitioners to improve health literacy environments. [13] This marks a radical shift away from earlier conceptualisations of health literacy.

There is increasing recognition that the healthcare environment is critical in not only enhancing personal health literacy but also in redressing the problematic link between low individual health literacy and poor health outcomes. Policies which respond to this idea will be explored in the next section.

Australian Policy and Guidelines Relating to Health Literacy

In this section, a number of current Australian and international health policy documents are reviewed in relation to environmental health literacy (see Table 1). These documents include government and non-government publications. Examples of State government policies are taken from NSW and Victoria. Three core themes relevant to environmental health literacy were identified in the recommendations reported in these documents: the complexity of health services, the content of health information, and the physical environment. An overarching theme was also identified: the importance of consumer input and participation.

Complexity of health services

There is general agreement that the western healthcare system is complex. [14,15, 16] It is further agreed that this complexity creates barriers to care and promotes health disparities. [15,16] The complexity confronting consumers includes difficulties in ascertaining which health service is most appropriate for one's needs, ascertaining how to obtain referrals and make appointments, finding out whether treatments are covered by Medicare or private health insurance, and the need to interpret large amounts of often unfamiliar information. [17]

The need to reduce fragmentation and associated barriers to accessing care has been identified as a goal at state, federal and international levels. For example, the Australian Charter of Healthcare Rights states that Australians have a right to accessible healthcare. [18] Addressing barriers to accessing services lies at the heart of the WHO strategy for strengthening health systems. [19] This is also the focus of Criterion 2 of the Australian Council on Healthcare Standards' (ACHS) EQuIPNational guidelines (Standard 11) [20] as well as Priority Areas 3 and 4 of the 4th National Mental Health Plan. [21] The National Aboriginal and Torres Strait Islander Health Plan [22] also calls for action to reduce complexity-related barriers to healthcare. Moreover, the importance of understanding different consumers' challenges in accessing care is also identified in the Men's Health Plan [23] and Women's Health Policy. [24]

Content of healthcare information

Healthcare providers frequently overestimate the health literacy of the average consumer [16] and fail to ensure meaningful understanding of the information they provide. [15] Health information is often written at a reading level beyond that of most Australian adults. [1, 25] Healthcare providers may not identify this mismatch because of

consumers' unwillingness to admit confusion. [5, 26, 15] Koh and colleagues [26] and Paasche-Orlow and Wolf [15] note that the stressors often at play when accessing the healthcare system have the potential to erode consumers' health literacy capabilities: capabilities which may be adequate under less stressful circumstances. Consequences of misunderstanding health information can include consumers finding meaning which is inconsistent with the communicator's intention or turning to other resources which are more user-friendly but less reliable. [8]

Table 1: Policy documents reviewed for environmental health literacy themes

Documents published by the Australian federal government:	Men's Health Plan (Department of Health and Ageing, 2010)
	National Women's Health Policy 2010 (Department of Health and Ageing, 2010)
	4th National Mental Health plan (The Department of Health, 2009)
	National Aboriginal and Torres Strait Islander Health Plan 2013 to 2023 (The Department of Health, 2013)
State policy documents:	NSW State Health Plan Towards 2021 (NSW Ministry of Health, 2014)
	Victorian Health Priorities Framework 2012-2022 (Department of Health, 2011)
Documents from Australian non-government sources:	Australian Charter of Healthcare Rights (Australian Commission on Safety and Quality in Health Care, 2008)
	National Safety and Quality Health Service Standards (Australian Commission on Safety and Quality in Health Care, 2012)
	EQuIPNational Guidelines Standard 11 (The Australian Council on Healthcare Standards, 2012)
	EQuIPNational Guidelines Standard 12 (The Australian Council on Healthcare Standards, 2012)
International document:	Everybody's Business: Strengthening Health Systems to Improve Health Outcomes: WHO's Framework for Action (World Health Organisation, 2007)

Australian state and federal policies focus on the importance of providing health information which is meaningful to consumers, tailored for specific groups of consumers, and appropriate for the individual consumer's capacity to understand. For example, the importance of providing healthcare information which is meaningful to consumers and carers was highlighted under Criterion 3 of ACHS' EQuIPNational guidelines (Standard 11) [20] and the National Safety and Quality Health Service Standards [27], specifically the standards regarding medications safety, blood products safety, pressure care, and falls prevention.

Targeting health information to specific groups by using appropriate wording, language, and styles of communication was recommended in criterion 1 of ACHS's EQuIPNational Guidelines (Standard 11) [20], the Women's Health Policy [24], and the Men's Health Plan. [23] The latter two policies highlighted the importance of considering the target consumers' age and stage of life in planning health information which is relevant and meaningful. Similarly, targeting health information to an individual consumer's capacity to understand is covered under Criterion 1 of ACHS's EQuIPNational Guidelines (Standard 11) [20], the NSW State Health Plan [28], Goal 3 of the Women's Health Policy [24] and Standard 1 of the National Safety and Quality Health Service Standards. [27]

In general, health information needs to be provided in a language the consumer can understand. [21] This is especially important given the increasing demands on consumers' health literacy regarding interpreting health information, making decisions and articulating preferences. [24] The Australian Charter of Healthcare Rights [18] states that Australians have a 'right to be informed about services, treatment options, and costs in a clear and open way'.

The physical environment

Another key element of the health literacy environment is the physical environment. One aspect of the physical environment is the wayfinding cues consumers can use to determine where they are, identify where they need to go, and make their way to their destination. Difficulty can arise due to obstacles such as outdated or inaccurate directions, inconspicuous signage, and confusing place names such as "Patient Access Centre". [29] Other design obstacles include circular corridors, nondescript entrances, and obscured signs. [29]

Supporting consumers to find their way independently can reduce costs to a health service. [29, 31] Barriers to wayfinding can lead to stress, anger, anxiety, missed appointments, as well as lost revenue. [30] Identifying elements of the physical environment which impede consumer wayfinding is an important step toward improving the accessibility of health services. This goal was identified in both the Men's Health Plan [23] and National Women's Health Policy. [24] The Department of Health and Ageing also identified the need to improve physical access to healthcare as a key issue in reducing barriers, improving health outcomes, and ensuring equal access to healthcare. [23, 24]

Another important element of the physical healthcare environment is consumer comfort. Providing healthcare in a comfortable and appropriate environment is recommended in Criterion 1 of ACHS's EQuIPNational Guidelines (Standard 12). [32] The Men's Health Plan [23] recommends a gender-neutral environment including posters and magazines suited to

males. The Health Research and Educational Trust [33] makes recommendations for improving the healthcare environment in relation to noise, pain management and care, communication, and perceived cleanliness.

Despite the importance which the policy documents place on the physical environment in health literacy, reference to this theme was not found in all reviewed policy documents. This may indicate that the influence of the physical healthcare environment is less widely acknowledged than the other two themes.

Involvement of consumers in development and evaluation

An important overarching theme identified in the reviewed policy documents was the idea of consumer participation and feedback. This is in line with Declaration IV of the WHO's Alma Ata, that "the people have the right and duty to participate individually and collectively in the planning and implementation of their health care". [34] The Australian Charter of Healthcare Rights also states that Australians have the right to comment on healthcare and have concerns addressed. [18] In general, the evaluation of healthcare provision should be informed by consumer feedback. [27, 28] The National Aboriginal and Torres Strait Islander Health Plan [22] and Standard 2 of the National Safety and Quality Health Service Standards [27] place particular emphasis on continual consumer participation and partnership. It is recommended in the Women's Health Policy [24] and Men's Health Plan [23] that intended audiences should be involved in the production of resources to ensure they are appropriate for the intended consumers.

Assessing the Health Literacy Environment

Given that environmental health literacy is essential to the provision of effective healthcare, it is imperative that services assess their own health literacy environment including through consumer engagement. [26] Assessment serves to shine a light on the barriers and enablers that may be impacting quality of service. [13, 35] Identification of burdensome health literacy demands can be the first step in reducing barriers and providing more accessible and effective care. An important means of assessment is feedback collected from consumers about their experiences and perspectives [1, 12], as noted in much of the policy literature reviewed above.

Existing tools

Currently, there are four review tools available to guide health services in evaluating their health literacy environment:

The Health Literacy Environment Review [25] is an American resource which includes instructions, checklists, and an action plan, with suggestions for reducing identified barriers. The review activities are designed to be completed by consumers, placing significant emphasis on consumer feedback. This resource assesses print and oral communication as well as the physical environment but only regarding wayfinding. The overall complexity of the service is not assessed.

The Health Literacy Review: A Guide [13] is a resource from New Zealand which includes a step-by-step guide to planning and performing a health literacy review within a health service, together with a guide for developing a health literacy action plan based on the results of the review. Complexity of services is reviewed by asking staff how their organisation practices health literacy, and by two separate interviews with consumers about their experiences. These consumer interviews together with observations of clinical interactions also provide information about the appropriateness of verbal communications. Document analysis is used to assess written resources intended for consumers. The physical environment is also assessed, either by the reviewer or a consumer, with respect to wayfinding.

The Enliven Organisational Health Literacy Self-Assessment Resource [36] is an Australian assessment tool which is based on ten aspirational attributes of a health literate organisation. Each attribute is described, and a

checklist is provided for the assessor to determine whether the criteria of each attribute are present within the organisation. Notes or plans for future action can be recorded. This resource assesses the physical environment (including accessibility and wayfinding), the content of healthcare information, consumer involvement in service evaluation and development, and elements of complexity of the service, such as how payments are made. A limitation of this review tool is that all findings are based on the opinion of the assessor rather than consumers.

Literacy Audit for Healthcare Settings [37] is an Irish auditing resource which includes a toolkit and best practice guidelines for literacy friendly healthcare settings. The auditing guide covers way-finding, print materials and verbal communication. The range of elements assessed is comprehensive and feedback consists of a checkbox which may be completed by staff, or in some cases, by consumers. The assessor selects from four options which indicate to what extent the element is currently being achieved by the health service. This is useful for developing an overview of organisational health literacy. However, further feedback would be required to isolate specific actions for improvement.

Use of review tools in Australian health services

Despite the availability of review tools, there are very few published examples of Australian health services taking advantage of health literacy evaluation to improve the quality and safety of their service. Johnson [4] described the assessment of a small rural hospital in South Australia using the First Impressions Activities, which are part of the abovementioned Health Literacy Environment Review. [25] Johnson concluded that health literacy barriers were problematic in the evaluated setting, and recommended the tool for similar services trying to reduce health literacy demands for their consumers.

Conclusion

This review has described the evolution of health literacy and the health literacy environment. It has also highlighted that environmental health literacy is a focus in Australian and WHO health policies. Evaluating environmental health literacy in Australian healthcare services, and acting to redress identified weaknesses, is essential if Australia's health policy goals are to be met. However, while there is a plethora of research on individual health literacy, there is a dearth of published health literacy environment evaluation in Australian healthcare settings. More published work in this area could help to establish what barriers and enablers exist in Australian healthcare services and guide improvements. The drabness of the term 'health literacy' is unfortunate because the concept is much more important than it is exciting. It is also an area in which meagre investments may return substantial improvements in health outcomes.

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ACHSM Australasian College of Health Service Management

How Are Continuous Quality Improvement (CQI) Approaches Used in Evaluating Management Development Programs? A literature review

LEIGH-ANN ONNIS, MARCIA HAKENDORF, KOMLA TSEY

Leigh-ann onnis - James Cook University Cairns Campus - College of Business, Law & Governance, Cairns, Queensland 4870, Australia
Marcia Hakendorf - CRANAplus - Professional Services, Adelaide, South Australia, Australia
Komla Tsey - James Cook University - College of Arts, Society & Education, Cairns, Queensland, Australia

Correspondence: leighann.onnis@jcu.edu.au

Abstract

Aim: The aim of the review was to examine the characteristics of studies that use CQI approaches to evaluate management development programs; and to synthesise the findings to understand how CQI approaches are being used to evaluate the effectiveness of management development programs.

Method: A scoping review of the literature was conducted in a manner consistent with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement. The matches were screened by title and abstract using the inclusion criteria, leading to a full paper review of 48 papers. Of these, the 14 papers found to meet the inclusion criteria for the scoping review were independently reviewed and analysed by two of the authors.

Findings: The review revealed the ways in which CQI approaches were used in evaluating management development programs highlighting the role of context, pre-determined competencies and participatory CQI approaches. Participatory CQI approaches including on-the-job application of learning provided opportunities for participants to learn through CQI activities associated with action learning and CQI feedback cycles.

Conclusion The authors concluded that evaluations using participatory CQI approaches are better positioned to report more comprehensively on the benefits of management development programs when they include the competencies required to be successful in the context within which the manager is working. Future directions for research in this area include an examination of the microsystem context to determine whether the required management competencies associated with remoteness differ from other contexts.

Keywords: CQI, continuous improvement, program evaluation, management, development

INTRODUCTION

More than a decade has passed since Drucker observed that large healthcare organisations are the most complex institutions in history, and that small healthcare centres are barely manageable.[1] Yet, the complexity of health services, together with the increasing demands placed on health managers remains relevant.[1] With predicted health workforce shortages globally, strong leadership and management are essential, particularly in regions that traditionally experience workforce shortages, if they are to deliver quality health services. The WHO[2] policy recommendations about improving access to health workers in areas where workforce shortages are common (e.g. rural and remote areas) encourages all countries to strengthen leadership development programs and create supportive workplaces.[2] Furthermore, the WHO suggest that the geographical context requires specific interventions 'because addressing rural and remote areas will also address the needs of underserved populations more broadly.'[2, p.9] Similarly, CRANAplus[3] and the National Rural Health Alliance[4] report specific issues associated with the characteristics of remoteness. Therefore, a focus on improving management capability, particularly for managers working in remote areas where remoteness exacerbates the difficulties in accessing management education, training and support will contribute to health service improvements. [4-6]

The challenges for managers stem from widespread health system reform, health service restructuring, economic pressure from aging populations, increased demand for health services and funding reforms.[7,8] In Australia, a review of health service management raised concerns about widespread skill deficiencies, particularly a need to develop skills in building and nurturing relationships.[8] This is not restricted to health services, with a major review (Karpin Report) into ways of improving management development in Australia into the 21st century raising awareness about the relationship between management capability and organisational performance. The Karpin Report highlighted the critical role of education and professional development, particularly, improved non-technical 'soft' skills (e.g. managing people, communication) in ensuring managers have the skills needed to be effective at any level of management. [9]

Management Development

Management development refers to a planned process of training, or specifically chosen capacity building activities, resulting in management capabilities benefitting the organisation. [10] Often, management development is self-directed with benefits experienced directly by the manager, and indirect benefits filtering through to health services. Often, evaluations reinforce individual benefits focusing on the participant's experience and satisfaction, missing the opportunity to evaluate changes in their performance as a manager and the quality of health services. [11,12] external private practices based on set fees for each the item of care provided. [4]

Continuous Quality Improvement (CQI) approaches

Generally, CQI is viewed as an opportunity to reflect on the success of an activity and how it could be improved. More specifically, program evaluation is a process of assessing 'the total value of training: that is the cost-benefit and general outcomes, which benefit the organization as well as the value of the improved performance of those who have undertaken training.'[11, p.14] Therefore, it is

imperative that management development program evaluations measure improvements in individual performance and service quality. CQI approaches are often used to bridge gaps between best practice evidence and what happens in practice with a view to improving population level health outcomes.[13] Hence, CQI is used in identifying problems, developing solutions and evaluating changes to ensure that education and training programs meet the needs of the participant, provide cost-effective management development solutions for organisations, and lead to service improvements for customers.[13,14]

The CQI literature highlights the influence of context with some studies attributing variation of results to differences in the context for the CQI initiatives.[15-17] These contextual or within service factors are described as microsystems.[18] Microsystems are defined as 'small groups of people who regularly work together to provide care.'[17, p.503] In microsystems, context includes the characteristics of individuals, the organisation, the physical, and cultural environment (e.g. supportive clinical leadership, workforce stability).[16,17] There is limited understanding about how the drivers of CQI effectiveness in a microsystem interact with one another and/or with other contextual factors to achieve the desired impacts in primary health care services.[12,17] Despite this, it is believed that lessons learned in one microsystem, provide valuable insights for other microsystems with similar characteristics.16 Hence, this scoping review contributes to the literature about how CQI approaches are used in evaluating programs for a subgroup (managers) who have considerable influence over their particular microsystem.

This scoping review analysed and synthesised the existing literature to answer the question, How are CQI approaches used in evaluating the effectiveness of management development programs? There were few health service specific management development programs reported in the literature, so a broad scope was necessary in an effort to identify literature that describes empirical studies with management development programs containing general management and/or soft management skills training; areas of need identified in the health service management literature.[2,8] Therefore, the aim of this scoping review is to examine the characteristics of studies that use CQI approaches to evaluate management development programs, and to synthesise the findings to understand how CQI approaches are being used to evaluate the effectiveness of management development programs.

METHODS

A scoping review of the literature was conducted using accepted scoping review methods and in a manner consistent with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Statement (Figure 1).[19,20,21] The literature search used a combination of the search terms 'evaluat*', 'manage*', 'program', 'training' using One Search which searched multiple databases including: informit, CINAHL, EBSOHost, OvidSP, OvidMP, PubMED, ProQuest and the Wiley online library. The literature searches resulted in variable matches across search terms; however, a larger number of matches did not result in a higher number of articles that met the inclusion criteria. Next, a search using the same search terms was conducted on the Emerald Insight and the Cochrane Library databases. An additional search of systematic

reviews was conducted using the Cochrane Library database, which identified two systematic literature reviews, both of which authors LO and MH agreed did not meet the inclusion criteria.

The matches were screened by title and abstract against the inclusion criteria:

a) Peer reviewed

b) Published in English

c) Published between 1/10/1997-1/10/2017

d) Used a CQI approach to evaluate a management development program that included general management and/or 'soft skills' management training.

All matches were screened and 48 papers were included in the full paper review. These papers were read in full by author LO, with 14 papers selected for the scoping review (Figure 1). While quality assessment does not usually form part of a scoping review, the requirement that the selected papers were published in peer reviewed journals was a proxy for research quality. [19,20] Authors LO and MH agreed that the 14 papers selected met the inclusion criteria for the scoping review. The review commenced with an analysis of the broader characteristics of the publications using the key characteristics (Table 1 and Table 2) developed by author LO through an iterative process. To minimise researcher bias, authors LO and MH, independently reviewed and analysed the selected papers using the pre-identified key characteristics and resolved the small proportion (approx. 5%) of coding disagreements through a consensus-seeking procedure. Through reviewing the papers and discussing the coding together, interrater differences were addressed and resolved.

RESULTS

Characteristics of the studies

An examination of the selected publications illustrated the diversity in characteristics of the management development programs (Table 1). An analysis of the characteristics highlighted the similarities and differences in management programs from across the globe: United Kingdom (UK) and Ireland, Europe (Netherlands, Sweden, Serbia), Asia (China, Iran), Canada and the United States of America (USA). There were no Australian studies; however, one contained an Australian program customised for managers in China. The programs ranged from ten days to two years with 43% less than one year, 29% one year, 14% more than one year, and for 14% the duration was not reported. The studies were across four industries (health, hospitality, insurance and gaming), in both government organisations and private organisations. Only two were pilot studies; however, many of the studies were small (half had less than 60 participants). Many (43%) were accredited training programs, with the remainder being non-accredited training programs. While many (43%) did not report how participants were selected; of those that reported the selection process, most frequently (43%) participants were nominated by senior management. Two studies provided training for all managers in the organisation, and for another, managers self-nominated.

Most frequently, the studies were mixed methods (43%), followed by quantitative (36%) and qualitative (21%).

Overall, the studies reported that the programs were developed to achieve three aims: provide managers with qualifications; improve management capacity, knowledge and/or skills; and to improve retention. The evaluations of the management programs aimed to examine: the benefits of the project

undertaken in the study (including the returns from the program); the effectiveness of the CQI evaluation approach used; the aspects of the programs that influenced its effectiveness; an improvement in management skills and capacity; and organisational level improvements. Notably, the aim of the evaluation was not always consistent with the aim of the program (e.g. Adams and Waddle [11] evaluated the returns, including the impact of outputs on profitability, for a program that aimed to provide managers with management qualifications).

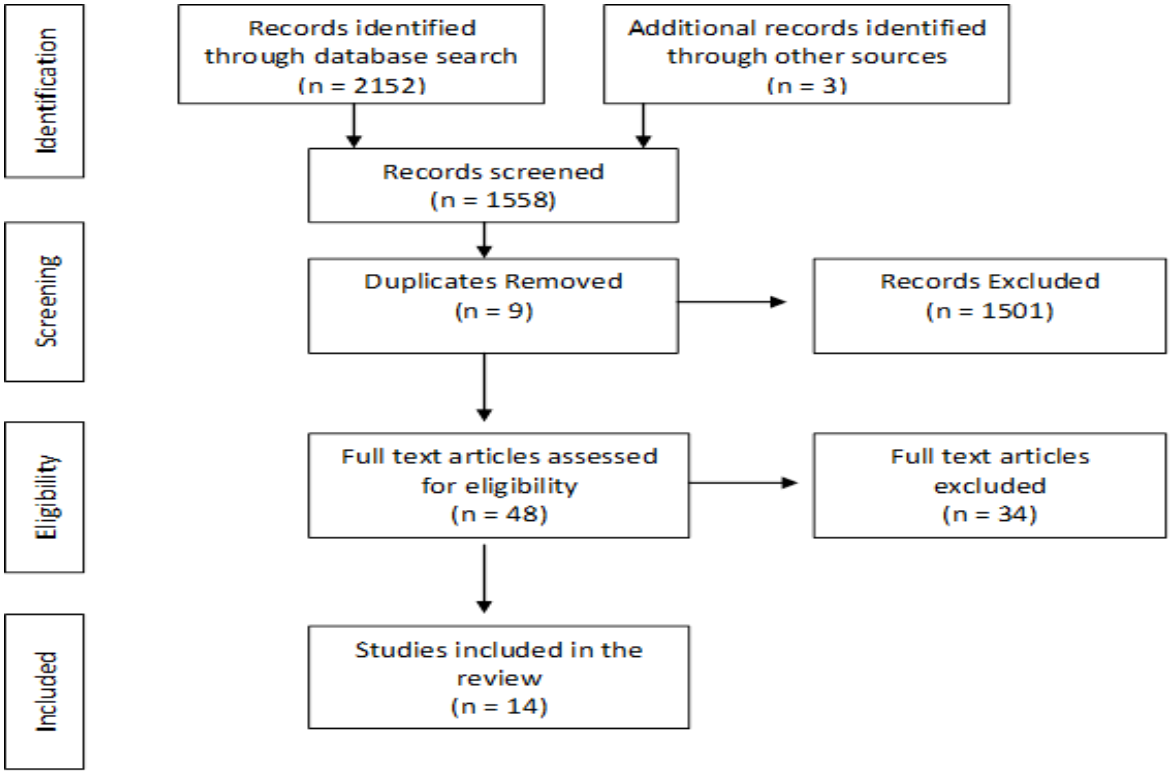

Figure 1: Scoping review process using the PRISMA

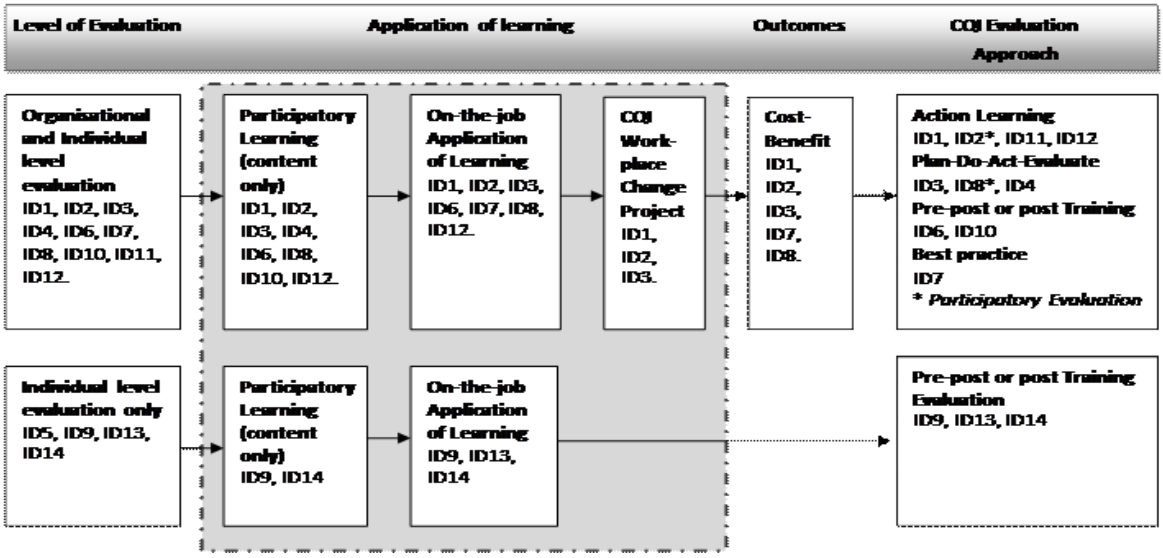

Figure 2: CQI approaches to management development program evaluations

Six studies used predetermined competencies and measured the participant's progress using these competencies. Four of these studies (three in USA and one in Serbia) were conducted with health managers. The pre-determined competencies contained in the studies prescribed a variety of competencies presented as two skillsets: soft management skills and hard management skills (Table 2).

Context

The scoping review sought to consider the influence of context. Unfortunately, it was not possible to consider geographical context as the selected publications did not provide sufficient information to determine whether the managers worked in urban, rural or remote locations. However, context was raised in six studies. Yapping and Stanton [22, p.166] reported that contextual issues may arise from cultural differences in management education explaining that 'China has been slow to develop the concept of student participation.' Omar et al. [23, p.10] reported that not collecting information about context from respondents 'made it impossible to assess to what extent reported changes (or not) in practice were related to the training programme or to factors in the organizational environment.' Wallis and Kennedy [24] found that context may influence the manager's success in workplace application of skills. Similarly, Fealy et al. [25, p.331] emphasised the importance of evaluating 'the expression of these competencies in context, i.e. in the everyday performance of the leader's professional role'; and Steensma and Groeneveld [26, p.331] proposed that analysis 'should lead to cumulative knowledge of causal connections between characteristics of persons, interventions, and contexts.' Finally, Holmberg et al. [27, p.165] explained that their quasi-experimental design was 'vulnerable to a range of contextual influences'. Hence, context creates both interconnectivity and complexity for program evaluations.

CQI approaches

CQI approaches are being used to evaluate management development programs at the individual and organisational level. There were a variety of CQI approaches, reported, including: action learning (29%); CQI feedback cycles (e.g. learn-apply-feedback-review, plan-develop-implement-evaluate) (14%); staged continuous learning approaches (7%); best practice (7%); pre/post training evaluation (14%); and post training evaluation (29%) (Table 3). Of the ten programs that included an on-the-job component, seven evaluated at an individual and organisational level, using action learning (43%), CQI feedback cycles (29%); best practice (14%) and post training evaluation (14%). Further, the programs using a CQI project to demonstrate the application of skills used either action learning (67%) or a CQI feedback cycle (33%).

Ten studies (71%) used participatory approaches for learning and skill development; yet, only two studies (14%) used participatory approaches in evaluating the program. While five studies (36%) reported conducting a cost-benefit analysis, only four reported tangible organisational benefits, such as 'One of the work-based project outcomes provided an immediately workable solution and in turn it is estimated has saved the WPLC £1.5 million in development and implementation costs'[11, p.20] and 'With all salary/benefit and program costs compared to these dollar savings, the 2012-2013 PLA yielded a 106 percent ROI.'[28, p.404]

Stratifying the selected publications by level of evaluation (individual, or individual and organisational), and then following the evaluation process from program content (e.g.

participatory learning approaches) and on-the-job application of skills, through to outcomes (e.g. cost-benefit analysis) and CQI evaluation approach reveals how CQI approaches are being used (Figure 2). Of interest to this review, three studies evaluated management development programs at both the organisational and individual level and included the implementation of a CQI project. These same three studies, as well as two others, evaluated cost-benefits as an outcome for the program. Furthermore, two of the studies that evaluated for cost-benefits included a participatory CQI approach to evaluation (Figure 2).

DISCUSSION

The review revealed that the most compelling evidence for the effectiveness of management development programs arises from studies using participatory CQI approaches for evaluating on-the-job application of skills leading to organisational benefits. Further, the studies that included the development and implementation of a CQI project not only provided for real-world application of skills, they provided an opportunity to measure organisational impact, including cost-benefits. The synthesis highlighted three factors to consider when using CQI approaches to evaluate management development programs: context, core competencies, and participatory CQI approaches to evaluation.

Context

The review suggests that both organisational and ethnically-based cultural contexts influence the implementation and evaluation of management development programs. [16,17,22- 24] Some organisational cultures nurture real-world skill development, are open to change and create safe, supportive environments for managers to practice and refine their skills; however, some are not. [17,18,29]

The review contained a study where a participatory approach was not compatible with traditional Chinese culture highlighting the importance of considering the compatibility of participatory CQI approaches for programs that contain cross-cultural groups. Particularly, where western perspectives of management are presented to participants from non-westernised cultures. [22] Also, evaluations should consider the cultural context when employees are asked to provide feedback about their manager's performance as it may be contrary to culturally accepted behaviour (e.g. respect for a hierarchy, fear of losing their job). Therefore, it is essential that management development programs are customised to ensure that they use contextually and culturally responsive participatory CQI evaluation approaches.

Core competencies

Core competencies recommend the skills needed for a manager to perform at a level that meets organisational and customer expectations. Few of the selected studies used pre-determined competencies in their evaluations; despite many credentialing bodies and professional organisations having frameworks or models for their particular industry and/or profession. [30-32] Management competencies are categorised as 'soft' management skills or 'hard' management skills. [29,33] Hard management skills are tangible; therefore, more easily evaluated. Hard business skills include: accounting, computer literacy, and technical knowledge to operate equipment. In contrast, soft skills are abstract and generally harder to evaluate; however, they are important skills for leaders and managers. [29,33] Soft management skills include: self-awareness,

communication, emotional intelligence, self-regulation, and social skills. [29,33] Recently, there has been an increased focus on developing soft skills in managers. This focus on improving soft management skills for health managers is congruent with the competencies recommended by professional and credentialing bodies. [1,8,30] Common sense suggests that using health service management competency frameworks for management development programs will contribute to improve quality health services.

Participatory CQI approaches

The review provided strong evidence about the benefit of participatory CQI approaches to learning and evaluation. Further, programs that contained on-the-job application of skills were better placed to demonstrate cost-benefits and return on investment (ROI). Hence, evaluating programs using pre-determined competencies, to the level of cost-benefit provides a robust and economically sensible method of evaluation. To achieve this end, management development programs must be developed, implemented and evaluated in a manner that collects the data required for this level of analysis. The findings from this synthesis suggest that one way to do this is through participatory CQI approaches measuring outcomes against predetermined competencies, with an on-the-job component to assess the application of skills from multiple perspectives, over time, in a real-world context.

Future directions

The review revealed a dearth of information about management development programs specifically developed for geographically remote regions suggesting that an opportunity exists to explore the role that context plays for managers in this microsystem. Further, an examination of these microsystems could include investigation into whether specific competencies are required for managers working in remote health services; and whether management competencies differ by context (e.g. country, region, and/or ethnically-based culture). The findings would have international relevance and could inform the development of a framework that specifies competencies required for managers in geographically remote regions.

LIMITATIONS

The inclusion criteria limited selection to articles published in English possibly excluding some relevant studies. Also, the quality check for the review required articles to be peer reviewed, restricting the use of grey literature. This excluded articles from industry magazines and journals as they lacked the information needed to determine the validity and reliability of the information reported.

CONCLUSION

Evaluating management development programs beyond the level of participant satisfaction is costly and time consuming. However, to know the effectiveness of a program it is imperative to conduct evaluations that capture how well the program achieved the desired outcomes as well as the cost-benefit of the program. This scoping review set out to examine the ways in which CQI approaches are used in evaluating the effectiveness of management development programs. The findings suggests that participatory CQI approaches to management development program implementation and evaluation can contribute to improvements in the quality of healthcare.[17] Through a synthesis of the findings, the authors conclude that evaluations using participatory CQI approaches are better positioned to report more comprehensively on the benefits of management development programs when they include the competencies required to be successful in the context within which the manager is working.

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Table 2: Competencies used to evaluate management development programs

Soft management skills	**Self-awareness and Self-development**	Emotional Intelligence (ID3) Creating a leader in yourself (ID5, ID11) Professional self-development (ID9) Organising and time management (ID9) Self-development and initiative (ID11)
	People management	Leading people (ID5, ID11, ID14) Supervision (ID9) Motivation and guidance (ID9, ID14) Creating positive atmosphere (ID9) Delegation (ID14) Managing change (ID5, ID9)
	Working with others	Collaboration (ID3, ID5, ID9) Teamwork (ID3, ID5, ID11, ID14) Relationship building (ID5, ID14) Valuing diversity (ID5,ID11) Integrity and building trust (ID11)
	Communication	Oral and written communication (ID5, ID9, ID11) Using media and forums to inform and educate (ID5) Using visual representations of data (ID5)
Hard management skills	**Managing the Business**	Knowledge of the business, policy, law (ID5, ID9, ID11, ID14) Strategic planning (ID9, ID11) Operational planning (ID9) Resource mobilisation (ID5) Evidence-based decision making (ID5, ID9, ID11) Systems change (ID3)

[1] The scoping literature review used the four phase flow diagram from the PRISMA statement (Figure 1). The PRISMA statement provides a checklist/protocol for reporting the process of identifying and selecting publications for systematic literature reviews, as well as systematic reviews of other types of research, including evaluations of interventions (such as this scoping review). [21] In brief, Figure 1 shows the number of publications identified through the database search (2152), and through other sources (3). Using the PRISMA flow diagram, it can be seen that a fewer number of publications were screened (1558) which sometimes is a result of mismatching through the computerised search of keywords. Next, the screening process removed duplicates (9) and publications that did not meet the criteria leaving the smaller set of articles that appeared eligible for the review. Finally, after a full paper review, the remaining publications (14) were included in the analysis. Thus, the PRISMA statement's four phase flow diagram depicts how the publications were selected for the scoping review.

Table 1: Characteristics of the Management Development Program

ID No.	Author (date)	Program Name	Country	Industry	Sample size	Management Program Type	Program duration	Selection	Program Aim	Purpose of the study	On the job	Study Type	Predetermined Competencies	Findings
ID1	Adams & Waddle (2002)	Whitbread Enjoy Learning	UK	Hospitality	NR	University (post graduate)	NR	NR	Gain qualifications using a project driven approach	Explore how the value of the strategy was assessed	Y	Case Study	N	Benefits directly attributed to the work-based projects
ID2	Doyle (2014)	Leader's Edge	Ireland	Health	7	Accredited - level 8 module (undergraduate)	7 months	NOM	Enhance manager capacity and bring about change	Evaluate a leadership training program	Y	Program Evaluation (Pilot)	N	Action learning is effective in developing leaders and supporting change
ID3	Wallis & Kennedy (2013)	Leadership for Resilience	USA	Nursing	25	Education Program	1 year (4 x residential retreats)	NOM	Promoting team-based approaches to improve nurse retention	Assess the effectiveness of the training program	Y	Program Evaluation	Y	Effectiveness is influenced by leaders' emotional intelligence and organisational culture
ID4	Omar et al. (2009)	NR	UK & Iran	Health	23	Education Program	7 courses (1-10 weeks) over 1 year	NOM	Tailored program for capacity building	Evaluation to guide future program development	N	Program Evaluation	N	Training evaluations should assess learning and communicate results
ID5	Saleh et al. (2004)	NEPHLI	USA	Public Health	81	University modules	1 year	ALL	To improve the leadership skills	Evaluate program effectiveness against predetermined competencies	N	Program Evaluation	Y	Participants' skill level improved across all 15 competency areas
ID6	West et al. (2016)	Nurses Emerging as Leaders	USA	Nursing	75	Education Program	1 year (8-hours every 4-6 weeks)	NOM	Preparing nurse leaders for role transition and leadership	Evaluate participant competency improvements compared with non-participants	Y	Program Evaluation	Y	The program improves succession planning by developing leaders who are prepared for leadership positions
ID7	Throgmor-ton et al. (2016)	Physician Leadership Academy	USA	Health	21	Education Program	10 months	NR	To develop strong physician leaders in healthcare	Outline evaluation strategy and inaugural program outcomes	Y	Program Evaluation	N	The program met targeted outcomes across all levels of evaluation
ID8	Berg &	Coaching	NR	Fortune 500	59	Education	5 x 2-day	NR	Change behaviour	Examine the effect	Y	Case	N	Participants learned a

	Karlsen (2012)			company		Program	seminars		to improve use of manager's toolbox	of coaching on leadership development		Study		variety of solutions from the manager's toolkit
ID9	Supic et al. (2010)	Project for capacity building	Serbia	Health	107	University modules	1-2 years	NOM	Improve particular management skills	Identify improvements and explore predictors and relationships	Y	Cohort Study	Y	Training programs can improve competencies which improves competitive advantage
ID10	Steensma & Groen-eveld (2010)	NR	Nether-lands	Government	54	NR	NR	NR CG	Improve growth, knowledge, and performance	Demonstrate the value of experimental designs in evaluation studies	N	Experimen tal with a control group	N	Demonstrated 'good' management behaviours; differences in knowledge acquisition but not in behaviour
ID11	Hayes (2007)	Dimensions Leadership Program	Canada	Gaming	258	Pathway to certificate in management	2 week training sessions	ALL	Build existing skills and build stronger leaders	Evaluation of a leadership development initiative	N	Case Study	Y	Positive impact on the leadership competency; positive impact on KPIs
ID12	Fealy et al. (2015)	Clinical Leadership Development	Ireland	Nursing	70	Education Program (including mentoring / coaching)	6 months	NR	Individual and service level development improvements	Evaluation of leadership development programs	Y	Case Study (Pilot)	N	Clinical leadership development can impact on service in distinct and identifiable ways
ID13	Yaping & Staton (2002)	Health management Training Course	China	Health	233	Program formally recognised by the Hospital Accreditation Committee	2 years (part-time)	NR	Improve understanding of management, skills and efficiency of the health sector	Evaluate the impact of training in management practice	Y	Program Evaluation	N	Positively impacted on health management practices and made a significant contribution to management education
ID14	Holmberg et al. (2016)	Leadership Development Program	Sweden	Insurance	107	Education Program	12 days (2-3 day residential seminars)	NOM SS CG	Increase participants' leadership skills and capacities	Evaluate a leadership development program	Y	Program Evaluation	Y	Outcomes were meaningfully operationalised for generic skills and health and wellbeing

ALL = All; CG = Control Group; EVAL = Evaluation study; N = No; NEPHLI = Northeast Public Health Leadership Institute leadership training; NOM = Nominated; NR = Not reported; SS = Self-selected; Y = Yes

Table 3: CQI approaches for determining impact for management training programs.

ID No.	Author (Date)	CQI Approach	Purpose of Evaluation	Participatory learning	Participatory evaluation	CQI Project	Study Type	Impact Level Evaluated	Impact Reported	Cost-benefit	Evaluation recommendations
ID1	Adams & Waddle (2002)	Action Learning	Evaluate the returns from the program	Y	N	Y	MMR	Individual Organisational	Benefits were directly attributable to the work-based projects; financial savings	Y	Action Learning is a powerful tool for relevant knowledge to be brought to the workplace and helps personal learning and transformation
ID2	Doyle (2014)	Action Learning & Reflective Practice	Evaluate the returns from the program	Y	Y	Y	Qual	Individual Organisational	Improved leadership skills. Projects had positive impacts	Y	The project must be sufficiently difficult to promote learning, the mix of participants, and organisational commitment is crucial.
ID3	Wallis & Kennedy (2013)	CQI Projects – plan, develop, implement and evaluate.	Can differences be attributed to the LR training?	Y	N	Y	MMR	Individual Team Organisation	Success at the team level was affected by success at the individual and organisational level	Y	Evaluation suggests that success of the program may be more directly related to selection of teams and to organisation's commitment than to the ideas proposed by individuals.
ID4	Omar et al (2009)	Staged approach with continuous learning	To evaluate reaction, learning, application and organisational impact	Y	N	N	MMR	Individual Organisational	Participant satisfaction with the training; 81% could perform their jobs better	N	Consistent use of evaluation over time for comparisons
ID5	Saleh et al. (2004)	Post training evaluation	Evaluate program's effectiveness against predetermined competencies	N	N	N	Quant	Individual (program level)	Good long-term outcomes (e.g. PhDs and occupations)	N	Public Health leadership training programs are effective in improving skills
ID6	West et al. (2016)	Post training evaluation	Evaluation of program effectiveness	Y	N	N	Quant	Individual Organisation	Improves morale, succession planning and personal satisfaction	N	Further evaluation is required to ensure the content remains current, and that individual and organisational needs are met.
ID7	Throgmorton et al. (2016)	Best practice	Evaluation of program effectiveness	N	N	N	MMR	Individual Organisational	Continued engagement post training	Y	Following participants over time would yield more information on long-term impact of leadership development programs.
ID8	Berg & Karlsen (2012)	Learn-Apply-Feedback-Review Cycle	Setting the context, and reflecting on the meaning of the experience.	Y	Y	N	Qual	Individual Organisational	Participants can learn to solve real work challenges through coaching	Y	Future research should apply a comprehensive research design (e.g. control group).Supervisors and subordinates should be involved in the training process

ID9	Supic et al. (2010)	Pre/Post training evaluation	Identify improvements	Y	N	N	Quant	Individual level	The time in the management position influenced individual skill improvements; influenced by duration as a manager	N	Study can be improved with data other than self-reported and having a control group
ID10	Steensma & Groeneveld (2010)	Evaluation - pre, during and post program	Program effectiveness	Y	N	N	Quant	Individual Organisational	No long term outcomes reported	N	The 4–levels method gives detailed insights in results
ID11	Hayes (2007)	Action Plans to foster CQI	Examine the level impact of training	N	N	N	MMR	Individual Organisational	No	N	Preplanning for the evaluation process was critical to ensure a comprehensive program evaluation
ID12	Fealy et al. (2015)	Action learning, Service Assessment Tool (SAT)	Evaluate the program's service impact	Y	N	N	Qual	Individual Organisational	Direct impact related to projects and indirect impact arising from the program participation	N	Service user data is needed to examine service impact. Time bound studies cannot establish long-term impact
ID13	Yaping & Stanton (2002)	Post training evaluation	To improve the training program	N	N	N	MMR	Individual	Impact limited by workplace factors	N	The findings will be of interest to other health service management programs but cannot be generalised
ID14	Holmberg et al. (2016)	Pre/Post training evaluation	Increase workforce health /wellbeing	Y	N	N	Quant	Individual	Significant increase in self-reported LSE and PS; there may be a positive effect on health and wellbeing	N	Leadership evaluation programs can be evaluated within a framework of generic leadership skills and health-related outcomes supporting more theoretically anchored learning

Behaviour Response Inventory (BRI) (Schutte & Mellen 1999); Leadership Practices Inventory (LPI) (Koues & Posner 2007); Life Orientation Test – Revised (Scheirer et al 1994); LSE = leadership self-efficacy; Mixed Methods Research (MMR); N = No; PS = Political skills; Qualitative Research (Qual); Quantitative Research (Quant); RIHEL = Imputed Regional Institute for Health and Environmental Leadership (RIHEL) programme change model; SOC = Sense of Coherence; Y = Yes.

ACHSM Australasian College of Health Service Management

Service Navigators in the Workforce: An ethical framework for practice

JENNIFER DONOVAN, RALPH HAMPSON, MARIE CONNOLLY

University of Melbourne - Social Work, 161 Barry Street, Carlton, Victoria 3010, Australia

Correspondence: jennifer.donovan@unimelb.edu.au

Abstract

Aim and Context: This paper explores the current growth of service navigators in complex health and human services and details the development of the Service Navigation Relational Autonomy Framework as a guide to assist practitioners and managers implementing this role.

Approach: The framework was developed using a research into action process. The three-stage process included knowledge inquiry: bringing together existing knowledge in practice fields and research; knowledge synthesis: debate and exchange of practitioner insights and messages from research; and knowledge framework: framework creation based on the key elements of evidence-informed best practice.

Main Findings: The framework centres on four practice domains: reinforcing ethical practices; fostering self-determination; supporting transitions and wellbeing; and mobilising service systems. It incorporates the concept of relational autonomy as a foundation for navigator practice by recognising the nature of relationships and power dynamics in the provision of care, and the central importance of self-determination.

Conclusion A navigation framework is critical for practice guidance and to ensure service navigators and organisations have the capacity to meet the needs of service users and their families.

The framework presented in this paper seeks to encourage debate about service navigation, its implementation, and its future in health and human service organisations.

Keywords: navigation, service navigator, personalisation, relational autonomy, framework, self-determination, advocacy

INTRODUCTION

One of the most significant policy directions impacting, disability, health and aged care is the growing emphasis on service personalisation and individual responsibility. At the core of initiatives such as My Aged Care and the NDIS in Australia, is the recognition that service users are partners, rather than grateful recipients of care, and that they are key to determining the services they need. [1, 2] However, requiring individuals to navigate multiple primary, residential and acute services, raises a pressing issue for both system users and service providers. In the context of an increasingly complex and fractured service context, individuals can find systems bewildering, often leaving them lost, confused and unsupported. Likewise, service providers must adjust to market conditions where funding is determined by the choices of consumers, who may be ill-informed about the choices available to them and the quality of services on offer. Service fragmentation has been identified as an important antecedent in the evolution of the role of service navigator which better enables people to understand and work with this complexity, and to support their informed decision-making. [3] Service navigator roles are now becoming increasingly common in areas such as chronic health and oncology [4, 5], primary care [3], disability, and in the recent Tune Review of aged care services in Australia, a key recommendation is that service navigators be provided to support individuals and families. [1]

While the role of service navigation is increasingly visible across health and human services, there is relatively little research to guide practice. In support of the role, research does suggest that the development of the role is an indication of unmet need, particularly in the context of access to healthcare. [3] Further, there are indications that navigation services can help to reduce healthcare disparities [6], and can have a positive impact on health outcomes. [7] In the context of lay-navigators, it has been suggested that practical support can also be provided by navigators where patients live with chronic conditions and are beset by social challenges. [8] Relevant to the development of policy and practice frameworks, three components of 'ideal' navigation practice have been identified in the literature reinforcing the importance of: engaging well with families; focusing on more nuanced resource matching; and compassionate navigator persistence when service options are not well enough aligned with need. [9]

In this context of consumer choice and self-determination, the growing need for service navigation raises some important questions: What does the service navigation role involve? Who should perform the role? How can consumers be assured of the quality and competency of the service provided? This paper answers some of these questions and proposes an approach to service navigation that supports consumer choice and the ethical mobilisation of services to meet their needs, concerns and aspirations. The Service Navigation Relational Autonomy Framework (SNAF) is a conceptual framework that has its foundations in concepts such as health literacy and patient empowerment, and builds upon the existing patient navigation work in health and social care. This paper describes the development of the SNAF, its core elements and the implications for its use in health and human services.

METHODS – the development of the framework

Knowledge informed practice frameworks are being developed across a wide range of

practice areas, integrating research, practice theory, and ethical principles in accessible ways for practitioners. [10] The SNAF was developed using an iterative, practice framework development approach, modelled on this work, particularly in the child protection and family violence areas. [11] The development process began with a phase of knowledge inquiry starting a literature review that brought together existing knowledge in practice fields and related theories focused on autonomy, empowerment and health literacy. Practitioners and researchers then came together in a knowledge synthesis where practitioner insights and messages from research were debated and exchanged. This involved a process of selective reduction and conceptual specification that was then used to create a scaffolding of ideas in the form of the SNAF conceptual knowledge framework, identifying key elements of evidence-informed best practice in an accessible format for practitioners (figure 2).

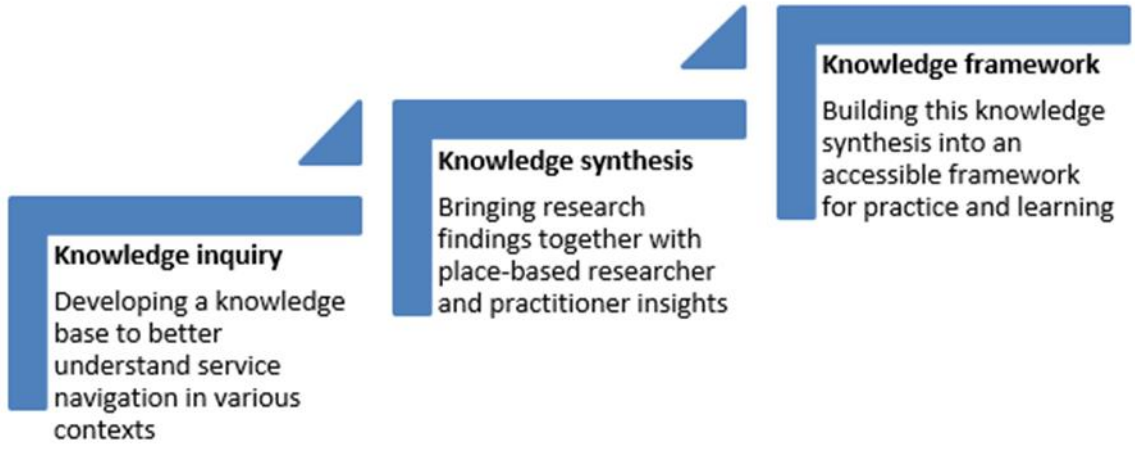

Figure 1: The research into action process
Source: adapted from Connolly, Healy & Humphreys. [11]

The initial knowledge inquiry stage found that the term navigator has been used across a variety of health-related areas. [4, 5, 12] These roles focused on aiding service users in complex and fragmented health, disability or aged care systems, where personal and systemic barriers impacted access and choice. It also identified the following key principles for navigation practice [5, 12, 13]:

- Navigation is patient/client-centred, consumer driven, and equity informed
- Navigation integrates fragmented systems, making them transparent for service users
- It supports consumer choice and eliminates barriers
- Clear navigation roles and responsibilities that are ethically informed
- Support for cost effective navigation services
- Incorporating a spectrum of navigation roles across a diversity of disciplines

These principles were considered within theoretical paradigms and practices related to patient/client autonomy and empowerment, capacity to "derive meaning from available information and to use that information to exercise greater control of and responsibility for his or her own health" [14, p6], and patient/service user empowerment, defined as "the patient's participation as an autonomous actor taking increased responsibility for and a more active role in decision making regarding his or her health" [14, p5], have been brought together in the SNAF to advance service provision in the context of self-determination, education and informed choice, and the support of care and wellbeing.

Both the knowledge inquiry phase and the workshops with practitioners also highlighted the importance of a relational rather than individual view of autonomy. Research in both health and aged care [15, 16] has highlighted the role of families and agencies in decision-making, alongside ethical concerns relating to power and influence. Relational autonomy acknowledges that all individual decision-making is conducted in a relational and social context from which the individual cannot be separated. [17] For example, while a young person in palliative care may seek support to make autonomous decisions, it is likely that they do so with a family context and the power dynamics of this context will be a factor in any autonomous decision-making they undertake. Relational autonomy is therefore integrated into the framework as central to the navigator role, focusing understandings of how these factors and dynamics influence self-determination.

This material was synthesised through consultations with researchers and practitioners leading to the creation of the key domains of the framework. Bringing together research, ethical principles and practitioner experience, enabled the framework to uphold the autonomy and self-determination that is envisioned by policy intent, while also acknowledging and negotiating the practical realities of power, complexity, relationships, interdependency and decision-making in the provision of services.

The Service Navigation Relational Autonomy Framework

The SNAF is a high-level framework that clarifies the service navigator role through the identification of four key domains that are essential to navigator practice within the context of contemporary patient/client centred service delivery: the reinforcement of ethical practices; fostering self-determination; supporting transitions and wellbeing; and mobilizing service systems. These four, discussed in more detail below, cross fields of practice and can be used to inform more specific practice guidance in areas such as disability, aged care, health and mental health. Each domain has a set of guiding trigger questions (Figure 2) that encourage practitioners to explore particularly important, or contentious areas of practice that were identified in the knowledge inquiry and knowledge synthesis phases of the framework development. In the spirit of the relational autonomy upon which the framework is based, it transparently sets out the critical elements of the service navigator role in ways that are sensitive to power dynamics, supportive of service user decision-making, and accessible to all parties.

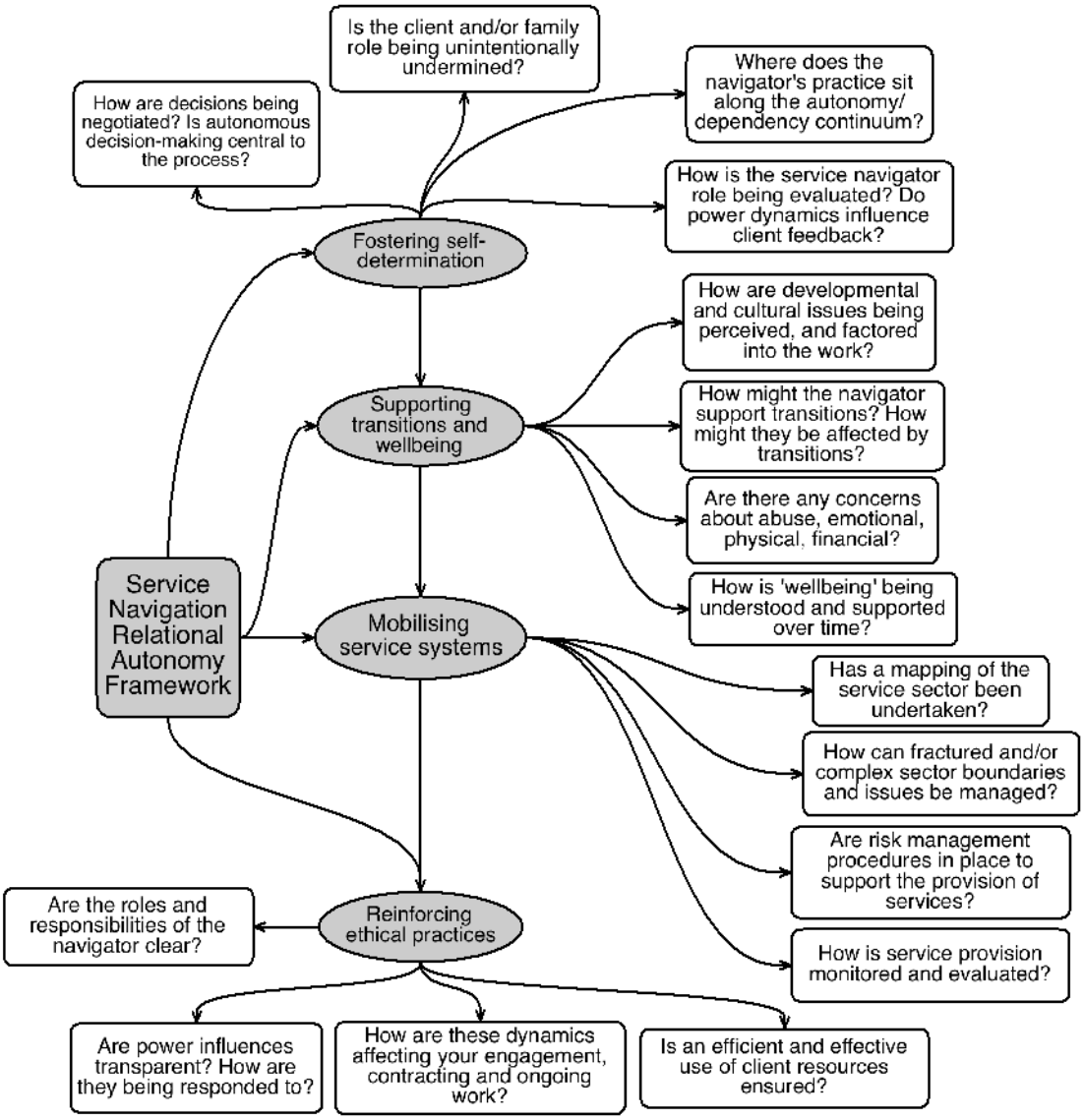

Figure 2: The Service Navigation Relational Autonomy Framework (SNAF)

Fostering self-determination

This domain guides service navigators to consider factors in relation to self-determination, such as autonomous decision-making and how the role of family and/or social networks are engaged within this context. The navigator's role is complex here as it has the potential to 'take charge' rather than enable service user self-determination.

The synthetisation process suggested that the navigation role can be undertaken by several professions such as social workers, nurse coordinators or case managers. [18, 19] Not all these professions necessarily position service-user agency at the forefront of practice and professionals undertaking a service navigation role need to fully appreciate that the emphasis on client autonomy is what distinguishes the role. Professional practice can sit across a continuum in terms of the degree to which it

supports client autonomy. Connolly and Morris's continuum of a service user-driven to professionally-driven practice [20], illustrates this emphasis and the degree to which a service user may be dependent upon the worker (Figure 3). Service navigation under this framework is firmly positioned at the service user-driven end of the continuum.

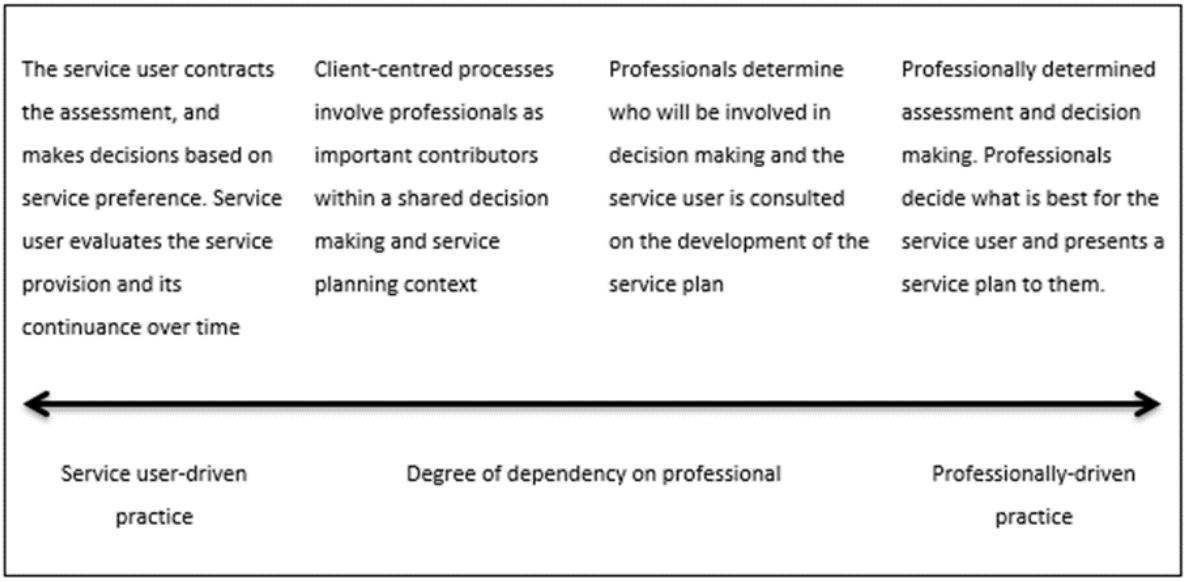

Figure 3: Autonomy/dependency continuum

Source: adapted from Connolly & Morris [20, p.73]

Fostering self-determination in these roles, however, will also include negotiating the influence and advice provided by family relationships and other informal networks of support. Navigators may step in where family support is not available, but the role of the navigator is nevertheless to strengthen these supports rather than replacing them. Organisations and navigators need to build a partnership with service users based on a clear understanding of roles and boundaries and how the service will be evaluated and monitored.

Supporting transitions and wellbeing

Understanding who the service user is, their context, needs and priorities, is essential to providing a tailored navigation service. Other models of navigation allude to understandings of 'client complexity'. [13] Through the synthesis process in developing the SNAF cultural contexts, social support, lifestyle and life course transitions, including adverse life events, have been emphasised as they are critically important to support service user goals and aspirations. Issues across the life course and the significance of life transitions are particularly important when planning service support. [21] For older people for example, self-determination often equates to wellbeing and independence, but this is often dependent on family support networks. [22] Transitions in the life course also represent points at which the navigator will need to negotiate differing views and influences on the service user's decision-making and definitions

of wellbeing. For example, at the end of life, families and individuals can often have differing views about the level of care required. [23] The navigator needs to negotiate these periods so that a user's personal definition of wellbeing remains central to decision making and navigation practice.

Mobilizing Service Systems

This domain draws on the tasks outlined in existing research around sector mapping and system boundaries [2, 12, 13] but also focuses on risk assessment, risk management, and service evaluation. Service navigators require an in-depth understanding of what systems offer, where and to whom, as well as the complexity of how systems interact and overlap (Figure 4). Often multiple systems do not work effectively with each other, complicating service user experience, and the service navigator needs to help to make sense

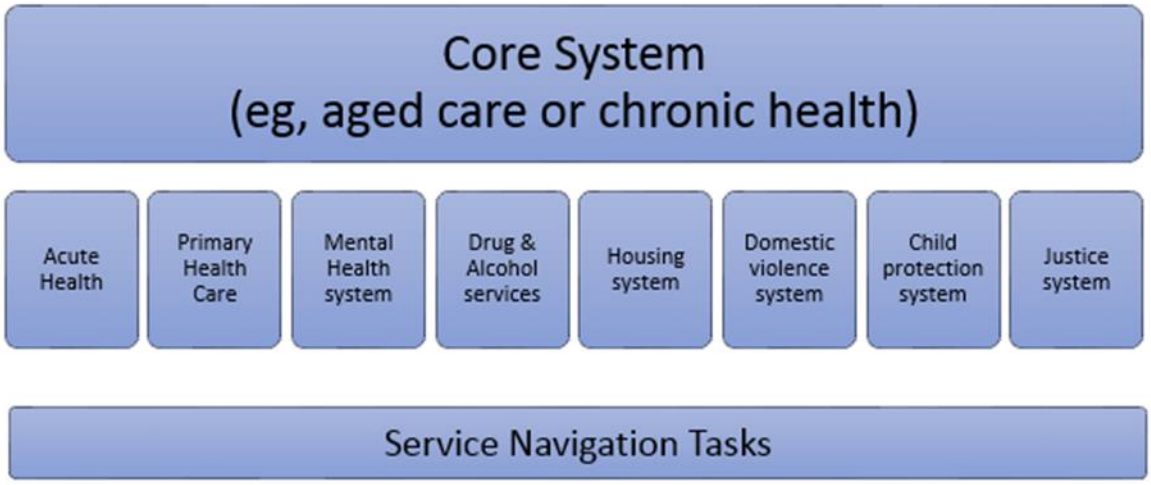

Figure 4: Intersecting systems

The 'mobilising services' domain draws attention to risk assessment and risk management. Working within this framework navigators need to be cognisant of the physical, emotional, legal and organisational risks when clients interact with service systems. For example, an older person may want to continue driving (self-determination and autonomy) but if there is significant risk of harm to themselves or others (incapacity), then risks and responsibilities need to be considered without undermining client autonomy. Understanding the line between risks that are reasonable for an individual to take and those that are unreasonable will be an essential consideration in this work.

Reinforcing ethical practices

While tasks were clearly identified in the literature on service navigation, the ethical basis upon which navigators' base decision-making was less evident. In defining ethical navigation practice, the framework also considers the execution of the navigation role: clarifying roles and responsibilities; transparency; and efficient and effective use of resources. In defining ethical navigation practice, the framework considers the

execution of the navigation role: clarifying roles and responsibilities; transparency; and efficient and effective use of resources. This domain also focuses on relational autonomy and the importance of power influences.

Power dynamics exist across all human service systems [25], and they can positively or negatively influence outcomes. Understanding power dynamics and undertaking 'power-sensitive practice' [26, p126] is critical when working within a relational autonomy framework. Relational autonomy recognises power as a normal part of human interactions. [17] It could also be argued that wellbeing is best supported through the moderation of power dynamics and as such navigators need to understand, with the service user, the power dynamics at play, and consider how these might be responded to.

DISCUSSION

Demand for navigation services is growing and organisations will need to prepare for these changes. The Tune Review [1] has foreshadowed the need for such roles and there is growing expectation from service users that they will be active and autonomous partners in their relationship with services. While this place the navigator in an advocacy role, is not intrinsically linked to any one profession or occupation. Rather, it is interdisciplinary in nature – nurses, primary and allied health professionals, as well as human service workers, social workers and those with peer or consumer backgrounds have already taken up such roles in the health sector. [24] These disciplines already demonstrate the capacity to work between systems, to negotiate within and beyond their own services and to be client-centred in their approaches. Working within a relational autonomy framework is nevertheless likely to present challenges for some disciplines. Social work writers, for example, have already cautioned work with individualised systems which are perceived to be at odds with that professions own ethical and practice standards. [18] We consider that service navigation is best able, nevertheless, to meet the needs of clients if it is developed in response to client and system contexts rather than being reactive to professional or disciplinary constraints. Navigators will draw on many of the skills developed in the broader interdisciplinary mix of human services, reinforcing the potential for service navigation to become a role on its own right, rather than connected to an existing professional context.

The services provided by service navigators do come at a cost, be it privately or publicly funded, and as such there is an obligation to ensure there is commensurate value, quality and accountability. Ethical issues sit at the heart of this and, we would argue, at every stage of the navigator's practice. There is a danger, however, with the increasingly influential social policy movement toward self-determined care, that a lack of an ethical framework guiding navigation practice will undermine the very principles of self-determination that personalised systems seek to advance. Recognising that service navigation potentially occurs across a range professional context, and may be undertaken by peers, volunteers or professionals, the SNAF clarifies the expectations of the role so that service users can be assured of the quality and competency of the service provided.

CONCLUSION

Service navigation roles are becoming central to the effective working of personalised care

within complex service systems, and are being adopted in health, aged care and disability. The SNAF provides a first step in recognising and clarifying the difference in role that Service Navigation presents, offering an accessible frame to guide practice. Identifying key areas that are important to ethical practice within a complex relational context, it provides organisations and individuals with a clear understanding of the knowledge and skills required to undertake the service navigation role well. As with all new models, further research and evaluation will be required to determine its ongoing relevance and efficacy in creating meaningful partnerships between clients, service navigators and the systems they are a part of.

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ACHSM Australasian College of Health Service Management

Factors Affecting Motivation and Retention of Village Health Workers and Recommended Strategies: A Systematic Review from 11 Developing Countries

DOLLEY TSHERING, PHUDIT TEJATIVADDHANA, DAVID BRIGGS, NEYZANG WANGMO

Dolley Tshering - Ministry of Health of Bhutan - Department of Public Health, Ministry of Health District Health Sector, Trongsa Ministry of Health Thimphu 11001 Bhutan
Phudit Tejativaddhana - College of Health Systems Management, Naresuan University - College of Health Systems Management (CHSM), Phitsanulok, Phitsanulok, Thailand
David Briggs - College of Health Systems Management, Naresuan University - College of Health Systems Management (CHSM), Phitsanulok, Phitsanulok, Thailand
Neyzang Wangmo - Khesar Gyalpo University of Medical Sciences of Bhutan - Medical Education Centre for Research Innovation and Training (MECRIT), Thimphu, Thimphu, Bhutan

Correspondence: phuditt@nu.ac.th

Abstract

Introduction: Motivation and retention of village health workers (VHWs) are crucial for the continuity, sustainability, and success of health programs. VHWs are the first point of contact for rural communities, providing health services to improve access and health coverage which, for a variety of logistical reasons, cannot be reached by the district health care system. Thus VHWs are critical for ultimately ensuring universal health coverage. However, systematic review revealed that there are numerous factors that affects their motivation and retention, leading to high dropout rates and hampering the delivery of health services to the community. This review intends to examine contextual factors affecting motivation and retention of VHWs in their roles and identify recommendations and strategies to motivate and retain them in the systems.

Method: Five electronic databases and two search engines were accessed. Nineteen studies met the inclusion criteria for the final review. An in-depth reading of all the articles was undertaken to gather and compile the relevant themes. Content analysis was done based on the list of specific categories that are relevant to motivation and retention.

Result: Findings from the systematic review revealed different levels of factor affecting motivation and retention of village health workers. It was finally contextualized and categorized into four main domains such as individual, family, social or community and organizational or systems levels. Financial incentives under the organizational factors was highlighted for the demotivation and the discontentment for the VHWs.

Conclusion Financial factors under the organization were often key in the studies reviewed. However, there were also many other factors, sometimes surprising or unintuitive, influencing the motivation and retention of village health workers.

Keywords: motivation, retention, village/community health worker, developing countries, factors

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1.INTRODUCTION

1.1 Background

Globally there is an acute shortage of health workers, especially in developing countries, and task shifting to village health workers (VHWs) is one way to address the human resource shortages. [1,2] Given the growing importance of VHWs, there is also growing concern about motivating and retaining them. [3] VHWs are local health-care workers who are selected by the community to look after the health and well-being of the community and who are trained in selected basic health topics. [4,5] They are often interchangeably referred to as community health workers (Uganda), village health volunteers (Thailand), bare foot doctors (China), lay health workers (South Africa) and so on. [6,7] In Bhutan, it is termed as VHW. [5] They are essential for promoting and achieving Primary Health Care (PHC) at the community level bridging the gap between the health system and the communities. [5,8]

This crisis of human resources for healthcare, which extends to VHWs, has been considered one of many underlying factors hindering the performance of effective health service delivery, particularly in developing countries. [7,9] VHWs have a vital role to play in achieving Sustainable Development Goals (SDG) and reaching Universal Health Coverage (UHC). [10,11] since UHC is one of the important objectives and renewed focus of SDG to attain equitable and sustainable health outcomes and improve the well-being of individuals, families and communities. [12,13]

1.2 Purposes of the review

Volunteer-based programs are often hampered due to high dropout rates, which increases training costs due to the resulting requirement to constantly provide replacement workers to sustain the program. [14] The motivation and retention of VHWs have become critical for the sustainability of health programs, as a high dropout rate not only significantly impedes the delivery of health service but delays achievement of Universal Health Coverage. [7]

Despite providing various incentives, for example allowances or other, non-financial benefits that are feasible and affordable, such as recognition and appreciation through training, study tours, or awards, most of the countries continue to experience challenges with motivation and retention, as evidenced by persistently high dropout rates. [5,6,9,15]
Studies had identified a number of significant factors that increase motivation [16] as well as demotivating factors that lead to loss of VHWs. [2,17] Developing and implementing effective strategies for retention of VHWs in the community will speed up positive health outcomes and reduce disease burden. [18,19] Since a significant amount of research now exists from widely varying sources, a comprehensive literature review will help in identifying the contextual factors most affecting motivation and retention of VHWs in the health system.

2. METHODS

Articles related to VHWs from developing countries were sought out using five electronic databases: Scopus, Web of Science, PubMed, Science Direct and Springer Link; and two search engines: Google Scholar and NU Library One Search; searching for the keywords “village/community health worker”, motivation, retention, and “developing countries”. The search generated 246 relevant articles (49 from the web of science, 15 from Scopus, 13 from ScienceDirect, 12 from PubMed, 15 from Springer Link, 21 from Google scholar, and 121 from NU Library One

Search). The inclusion criteria used were peer-reviewed articles published in developing countries related to the review topic from the year 1990 to April 2017. In this way, 19 articles were selected as shown in Figure 1. Developing countries include Thailand, Nepal, India, Bangladesh, Kenya, South Africa, Uganda, Tanzania, Zimbia, Liberia and Bhutan based on the availability of study conducted on the review topic.

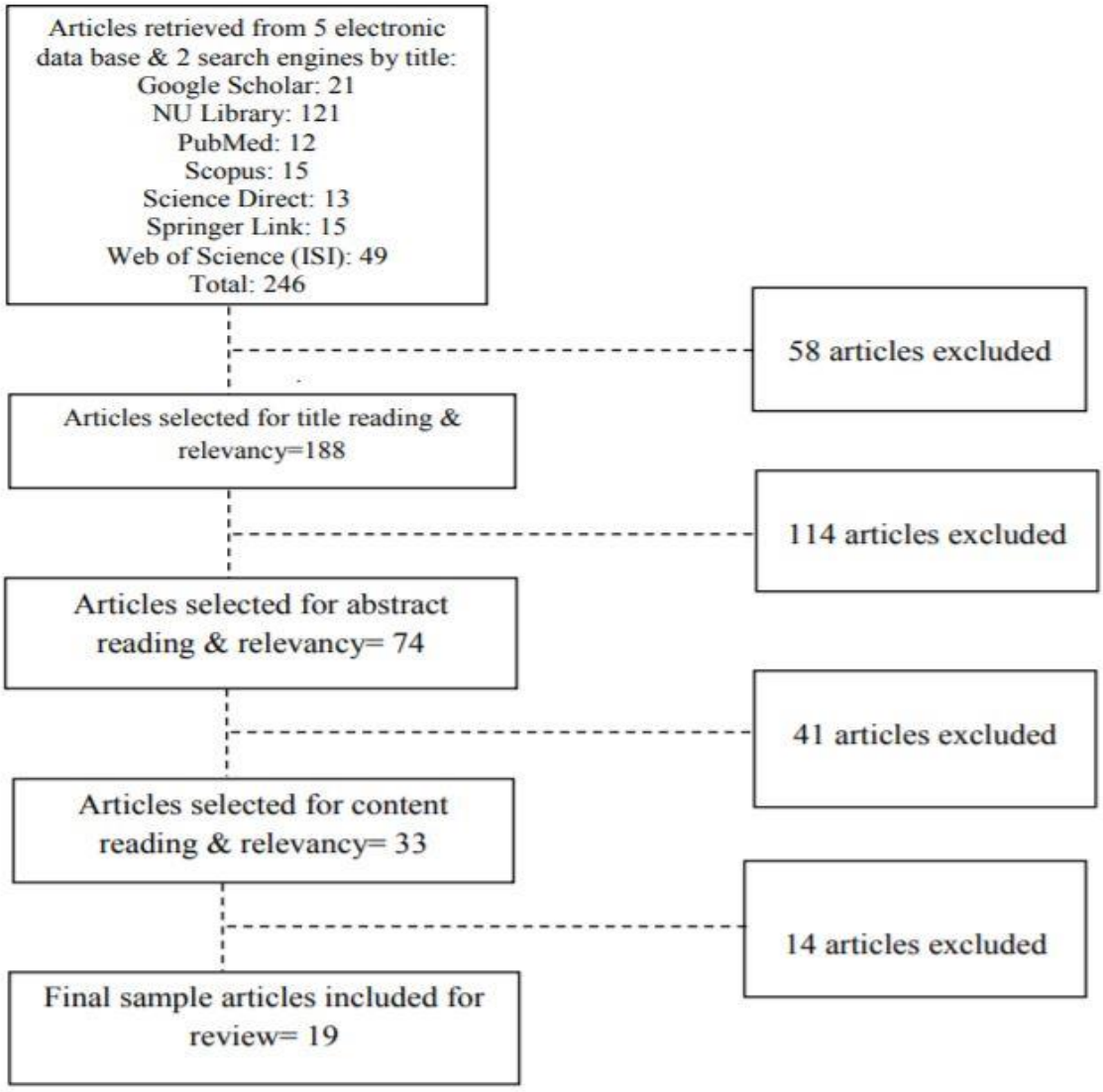

Figure 1: Flow chart of search strategy

Source: Developed for this review

Meta-synthesis was used to integrate, evaluate and interpret the findings from many qualitative studies in order to identify the common core element and theme of the factors affecting motivation and retention of VHWs. Following the detailed reading of the articles, the Preview, Question, Read and Summarize (PQRS) concept [20] was applied to

identify the themes. Content analysis was done to synthesize the main categories of contextual factors affecting motivation and retention. These factors were then grouped under four domains: individual, family, social or community and organization or system factors.

3. RESULTS

This systematic review found out the range of factors which are conceptualized and categorized under four main domains as showed in the conceptual framework in figure 2. The detail factors are listed below.

3.1 Individual factors

3.1.1 Socio-demographic characteristics

The socio-demographic characteristics such as age and education of the VHWs affects the motivation and performance of village health workers as per studies conducted in Busia District in Kenya, Morogoro Region in Tanzania and Kibwezi district, Kenya in 2014. [21,22] Similarly, studies in Bangladesh and Nepal concluded that personal and family factors contributed to the motivation and the retention of VHWs in the system. [17,23,24] Personal factors such as the desire to improve and develop one's personal skills were stated as the source of motivation for VHWs. [17,23] Moreover, it was found that they wanted to gain knowledge about health in order to look after the health of their own family. [3,25,26] However, other studies found that due to lack of time to do personal work. [27]

3.1.2 Job opportunities

A study conducted in Bangladesh in 2010 found that the factor that most often led VHWs to leave their job was a better job opportunity to work for the government, such as opportunities to become primary school teachers and other supervisory positions. [17]

3.2 Family factors

The family factor is one of the most important factors to motivate and encourage VHWs to work for the people. However, lack of support from the family members becomes a hindrance for them to continue to work further and much better. Family factor includes marriage and childbirth, availability of workforce and support and cooperation from the family members as stated below.

3.2.1 Marriage and childbirth

The main reason for women to leave from their work as VHWs was due to family reasons since they had to look after their children and take care of household chores after getting married. [17]; [28] VHWs also had difficulties with work-related travel, for example traveling at odd hours outside of the already long hours of work, which was seen to be inappropriate for female VHWs by their husbands. [29]; [17] Female VHWs also experienced being blamed by family members and neighbors for neglecting their children. [30]

3.2.2 Workforce

Although, studies reported that they have a willingness to serve as VHWs but due to the shortage of people to do the household chores were seen as demotivating factor. [28] Similarly, having to compromise their personal work and need to shoulder family responsibilities since there was no one to look after the household matters affected retention of VHWs in the system. [9,28]

3.2.3 Family support

Studies conducted in Bangladesh (2010), Tanzania (2013) and India (2016) revealed that the support and encouragement from family and neighbours motivated people to become VHWs. [2,17,23] However, due to insufficient remuneration to look after their family

especially for female VHWs, were the main reasons for family disapproval. [17,28,29,31]

3.3 Social factors

3.3.1 Social support

The study conducted by Takasug and Glenton found that the that social support received from the community were the important factors motivating the performance of VHWs [16] and in building a sense of obligation to their community. [24] Studies conducted by different authors found that the social support was significant for the motivation and retention of VHWs to work harder along with the combined efforts of the community people. [7,16,18,23,25,28]

3.3.2 Social recognition

Personal value and recognition through words of encouragement and psychological and emotional support were seen as powerful influencing factors for improving the health of the community by VHWs. [3,17,25,26] studies also confirmed that the community recognition play a significant role for the VHW's to performance their work better and motivation to achieve community goals. [3,17,25,26]

3.4 Organizational factors

Incentives (both financial and non-financial) were the key drivers motivating the health workforce with regards to VHWs in Bhutan [32] and other countries. [33] Various job benefits influenced the motivation and retention of VHWs [16] and further improved work performance. [23]

3.4.1 Financial incentives

Financial incentives were the main factor linked to retention of VHWs. [28] The same study found that VHWs who joined with the expectation of benefits were almost twice as likely to remain in the system. The study by Takasugi & Lee emphasized the importance of financial incentives to enable VHWs to support their families and pointed out that occasionally they needed to spend their own money for their work, for example, costs for transportation and phone calls without compensation. [16] The study conducted in Bangladesh also supported the finding that VHWs discontinued their service because of irregular salary. [31] Five other studies highlighted the lack of financial benefit either in cash or kind as one of the demotivating factors but it was also argued that that incentive could alter the essence of volunteerism and hamper the "service mind" tradition. [15]

3.4.2 Non-financial benefits

Community approval and social prestige were significant non-financial factors linked with retention of VHWs. [28] Non-financial incentives also included shirts and badges for their identification both in hospital and community settings and personal safety in the community. [16] The indirect benefits such as preferential services when they and their immediate family members visit the health facility were also valued and motivating. [16]

3.4.3 Recruitment and selection

Recruiting and selecting the most suitable individuals was seen as a crucial factor. [34] The study in Western Kenya that carried out focus group discussions and in-depth interviews with VHWs discovered that there was a lack of clear selection criteria, which resulted in some inappropriate candidates becoming VHWs and later ending up as dropouts. [29] The reason behind the selection of unsuitable candidates to be trained as VHWs was found to be that 91% of VHWs were chosen by the community, 6% by the community leaders and 3% by the rural health center staffs. [35]

3.4.4 Support and supervision

Besides not involving input from VHWs during planning as a demotivating factor, [30] it was also found that poor support and supervision from the organizational level for the betterment of the health delivery services discouraged the VHWs. [2,35] It was also mentioned that VHWs were not acknowledged or recognized by the organization for the work they did and not fully supported after the initial training was over. [36] Moreover, job burnout and poor career development opportunities [2], as well as inadequate support by the organization to get them a fair monetary return for the time and labour invested, were felt as demotivating factors. [27]

3.4.5 Working environment

Generally, the working environment and social obligations were seen as important elements in people's decision to become VHWs but it was mentioned that they were having discomfort with the night travel and work assignments during holidays. [17] It was also concluded that night travel and other unusual duties, particularly in rainy season, as well as a lack of transportation were particular problems since most of the health facilities are located far from their villages. [15,16,37]

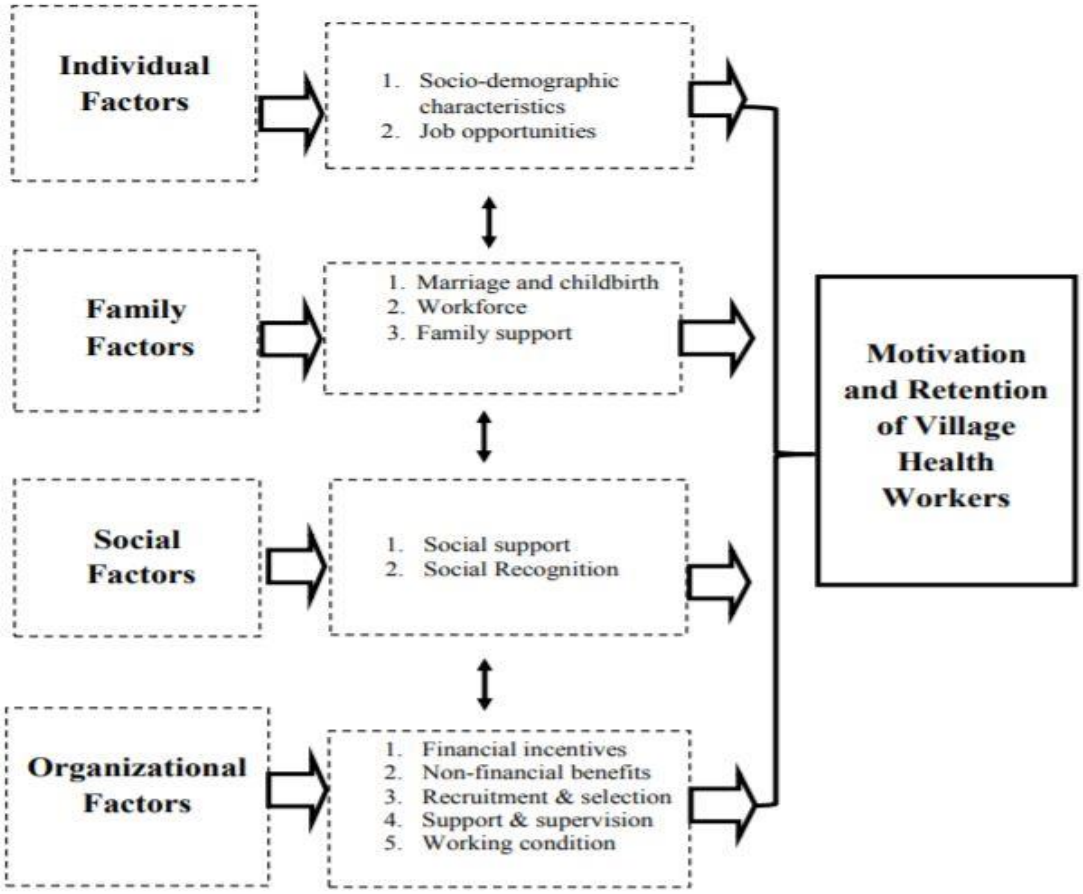

Figure.2: Conceptual framework

Source: Developed for this study

4. RECOMMENDED STRATEGIES

A universal point in the discussion of recommended strategies was the importance of financial incentives for the motivation of the VHW, as these contribute significantly to job satisfaction and work performance. [16] Restructuring and expansion of existing financial incentives was recommended in order to strengthen the commitment and participation of VHWs, which in turn can benefit programs directly, as well as provide value to the health system. [28]

However, a few studies suggested that it may not be necessary to provide a generic set of incentives for the resource-limited settings. Instead, program managers and policy makers should give a high level of attention to the specific context of each VHW's work. [31] A sustainable model for VHWs, where they can enjoy some financial benefits out of their essentially voluntary work and an elaborate mechanism of non-monetary incentives based on performance, should be practiced to inspire, appreciate and recognize their works. [27] A framework for the decision-making process and the sustainable model of VHW were proposed, adopting simple strategies of retention as community-based sustainable health interventions to accelerate the positive health outcomes. [18]

Having a framework for a decision-making process provides an opportunity for the VHW to negotiate to increase the benefits and/or reduce out of pocket costs to the VHWs. [15] A sustainable model for VHWs particularly emphasizes factors other than financial incentives, such as community acceptance and approval, family support, cooperation, appreciation and recognition by the supervisors and the community. [27]

The application of what is called a 'friction cost approach' can be useful for measuring the impact of VHW dropouts in relation to service interruption to the community. This method would help to estimate the indirect costs due to productivity loss. The friction period is the time until another VHW has replaced the individual who left the program. [18]

Finally, additional future research has been recommended and, such research is felt necessary to better understand nuances regarding intrinsic vs. extrinsic factors that motivate people to enlist as a VHW. Additional research would also be useful to study in greater detail the relationship between job satisfaction and performance. [22]

5. DISCUSSION

In many developing countries, VHWs not only play an important role in the delivery of healthcare services in the community [38] but also serve as agents of change in promoting healthy behaviors and reducing health inequities, all at a relatively low cost. [3] High dropout rates of VHWs adversely impact the sustainability of health equity, especially in the unreached pockets of the population, which are also important in reducing disease burden in the community. [39]

Financial incentives were described as the main factor linked to retention of VHWs in the system. [17,28] However, no one has claimed that financial incentives are the sole motivating factor. [27] Rather, VHWs can be motivated and retained by factors other than financial remuneration as well. [25] The studies did not agree unanimously that financial incentives posed a risk of changing the essence and mindset of volunteerism and further eroding the VHWs' attitude towards service. [15]

Among the numerous factors affecting the motivation and retention of VHWs at the individual level, the most significant factors were identified as marriage and childbirth,

better job opportunities, shortage of labour force at home and finally opposition from family members. Social factors play a role as well. [17] Other potential threats to the retention of VHWs in the system included lack of social support or lack of recognition as well as unconducive working environments because of the nature of the job. [16]

Further, lack of support and supervision at the organizational level were concerning factors. [27,29] Job burnout, personal health problems, job security and limited career development opportunities were also found to be de-motivating factors [2,36], as were heavy workloads, travel at night especially to work far from the home area, and inadequate monetary return against the time and labour invested. [17,30]

The dropout of VHWs impacted not only the cost incurred for new recruitment and training but also the interruption of service to the community. [18] Thus, improved retention of the VHWs would create a positive health impact, contributing to the reduction of the burden of illness and helping the health services reach all the population.

A mixture of research designs was used in the studies. However, the majority were qualitative studies. All the data was sampled from village health workers although they were working in various geographical areas.

Attention must be given to supporting the personal growth of VHWs. For example, they should be provided with appropriate economic support, communication, and coordination with the communities they serve and other stakeholders. The VHW's capacity, both their knowledge and skills, should be nurtured and developed. This will encourage them to continue in their work, and thereby expand the VHW program, sustaining momentum and strengthening the health systems.

6. CONCLUSION

This meta-synthesis of evidence showed the contextual factors affecting motivation and retention of VHWs in developing countries. It was determined that the factors were not confined only to financial incentives but also included other factors as well. Attention must also be given to factors at the individual, family, community and the organizational levels. These factors had great potential to impact the motivation and further retention of VHWs in the system. The findings gathered from these numerous studies conducted in different countries help both to understand the factors affecting motivation and retention of VHWs and to devise appropriate strategies for effective policy interventions. This information is useful for addressing existing problems of motivation and retention of VHWs in health systems and further improving health service delivery.

7. LIMITATIONS

The initial search retrieved a limit of 246 articles based on relevancy to the review topic, and from those a limit of 19 articles qualified for inclusion in the final sample. Since the search was in English, studies conducted in other languages may have been missed and overlooked. The review had a scope of eleven developing countries that had conducted research on the topic. Moreover, this was a narrative review and therefore, the content may not be of the most extreme depth possible.

Declarations:

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Consent for publication: All authors unanimously agreed and consented to send the manuscript to Asia Pacific Journal of Health Management for publication.

Availability of data and materials: All data generated or analyzed during this review were included from the published articles listed in the references.

Competing interests: No competing interest

Authors' contribution: The author and co-authors read and approved the final manuscript

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