



Beyond dispensing: Better integration of pharmacists within the Australian primary healthcare system



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ABSTRACT

A well-integrated primary health care system helps address the health needs of an ageing population with complex multiple health conditions. In Australia pharmacists provide services to maximise health gains from medication use, although they are not well integrated into primary care. Using the case of Australia, this study investigates why integrating pharmacists in primary care has not been addressed at the national level and also identifies strategies that could promote policy change. Using a unique dataset generated via 33 semi-structured interviews with healthcare leaders and policymakers across relevant disciplines, we undertake a systematic and comprehensive analysis of the policy with the Multiple Stream Framework. This framework examines the policy process with five elements: *problem*, *policy*, and *political streams*; *policy entrepreneur*; and *policy window*. The *problem stream* shows that the primary healthcare system struggles to cope with the increasing healthcare demand and the prevalence of medication-related problems. The *policy stream* suggests that the consumers would benefit from an integration of pharmacists into primary care to solve these problems; however, policy proposals cannot survive under current circumstances. The *political stream* reveals the political barriers come from conflicts among interest groups within the profession and the healthcare sector. To advocate their pet policy, policy entrepreneurs should have stronger roles in shaping the “policy idea” to gain its acceptance among the policy community, and to reduce political barriers. Strategies to overcome the barriers include evidence accumulation, role development in light of population needs, and interorganisational collaboration across members of the healthcare network.

1. Introduction

There are increasing population needs for appropriate use of medicines, regular monitoring of conditions and health and lifestyle education. Internationally, policies have focused on the integration of pharmacists into primary healthcare systems (Hertig et al., 2013; Jorgenson et al., 2013; Scott et al., 2011). Among various models of healthcare integration, the pharmacist integration discussion is often motivated “from evaluations of integration using an organisational

perspective to an emerging interesting in patient-centred measures” (Evans et al., 2013) which has a great emphasis on patient-centeredness and patient experience of integrated care rather than the impact of integration on organisations and profession (Evans et al., 2013; Singer et al., 2011). Indeed, evidence suggests that increasing the involvement of pharmacists in primary healthcare improves patients' health. For example, pharmacist-led medication reviews in the United Kingdom (UK) have reduced medication-related problems in community pharmacies, general practices, and care home settings (Avery et al., 2012; Desborough

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& Twigg, 2014; Tan et al., 2014a). Pharmacists positively contribute via improved medication adherence and better management of chronic conditions including blood pressure control and cholesterol management (Jokanovic et al., 2017; Milosavljevic et al., 2018; Twigg et al., 2016); chronic obstructive pulmonary disease (Hesso et al., 2016; Milosavljevic et al., 2018; van der Molen et al., 2017); supporting smoking cessation, lipid management, emergency contraception, vaccination (Anderson, Blenkinsopp, & Miriam, 2003); and controlling diabetes (Jokanovic et al., 2017). Healthcare costs have been reduced as a result of pharmacists' expanded services (Jokanovic et al., 2017). In the UK, minor ailments services provided by pharmacists are estimated to reduce healthcare costs by £6739 per month (Baqir et al., 2011). In Canada, the nation-wide implementation of smoking cessation, advanced medication review for heart disease, and pharmacists' provision of pneumococcal vaccination is estimated to reduce healthcare costs between \$2.5 billion and \$25.7 billion over 20 years (Gagnon-Arpin et al., 2017).

Pharmacists have, to varying degrees, integrated into the primary care system internationally, and worked in primary care including community pharmacy, general practice, aged care facilities and other primary healthcare settings to help service population needs (Hertig et al., 2013; Jorgenson et al., 2013; Scott et al., 2011; Tan et al., 2014b). For example, in 2005, the UK statutory regulations were changed to allow pharmacists to perform not only the prevention of medication-related problems (e.g., medication review) but also on health promotion services (e.g., stroke prevention campaigns, community health talks, vaccination, etc.), health screening or monitoring (blood pressure, blood glucose, cholesterol, etc.), and mental health services. These services, once the focus for general practitioners (GPs), are now nationally funded (Richardson & Pollock, 2010). Furthermore, pharmacists have funded roles not only in community pharmacies but also in general practices and care homes (Hindi et al., 2018). For example, the funding for general practice pharmacists has increased significantly from £15 million to support 250 pharmacists (NHS England, 2015) to £112 million to support further 1500 pharmacists in general practice by 2020 (NHS England, 2016). Similarly, legislative changes have enabled the integration of pharmacists in Canada, although states or territories have had different approaches (Canadian Pharmacists Association, 2020).

Despite evidence suggesting pharmacist integration improves health outcomes, in contrast to their counterparts, pharmacists have not been comprehensively integrated into the primary healthcare team in Australia. Firstly, there is no legislative regulation specifying standards of integrating pharmacists regarding expanded roles provided in community pharmacies or other primary healthcare settings. For example, although trained pharmacists can administer vaccinations across all jurisdictions in Australia, each jurisdiction differs in vaccination legislation, regulations and training requirements, specifically in the range of vaccinations and the allowable age of patients (Dineen-Griffin et al., 2020). Secondly, pharmacists are often omitted in discussions and implementation of an integrated primary healthcare system. Specifically, some government's primary care initiatives which were developed to build integrated primary healthcare through a multidisciplinary team failed to include pharmacist representatives (Dineen-Griffin et al., 2020). Furthermore, there are also inconsistent remuneration models for these pharmacist services, of which, only some provided through community pharmacies are funded nationally (e.g., medication management or medication adherence programs). In contrast, services deemed important for the integration of pharmacists in the primary care (e.g., general practice pharmacists) must be funded from other sources (e.g., limited through primary care initiatives in defined regions) while a large number of services are unremunerated or paid by patients (Dineen-Griffin et al., 2020).

The recent national Review of Pharmacy Remuneration and Regulation (known as the King Review) (King et al., 2017) involved extensive consultation regarding the current use of pharmacists in the primary healthcare network. As the King Review consulted widely with the policy community, the issue of pharmacist integration in primary care has

captured the attention of policymakers, evidenced by the fact that the Australian government noted the King Review's suggestion of integrating pharmacists into primary healthcare (Australian Government, 2018). While the King Review opened a policy window, it was unsuccessful in immediately implementing a policy change and, the issues with pharmacist integration policy remain.

The literature so far has not focused on the entire policy process, only pieces of the process. For example, the international literature has only reported some barriers to integrating pharmacists, such as the lack of regulation and role standards, which may prevent accountability and role responsibilities for advanced pharmacist positions (Bader et al., 2017; Steckowych et al., 2018). In regard to the design and implementation of expanded services in community pharmacies, Moullin et al., (2016), show that there is a lack of collaboration and communication between the pharmacy profession and other health professions, which may exacerbate the challenges (e.g. financial constraints, lack of a shared patients' health records, etc.) to expanded roles in community pharmacies (Donald et al., 2017; Franco-Trigo et al., 2018; Hermansyah et al., 2018) and in primary care practices (Butterworth et al., 2017). A meta-synthesis of 29 qualitative studies also points out a number of barriers (e.g., pharmacists' education and training, financial remuneration, and inter-professional collaboration) on developing and implementing these expanded services in Australia (Hossain et al., 2017). These barriers, in fact, reflect a violation of several principles such as "standardised care delivery through interprofessional teams", "performance management" and "financial management" which were well reported as the key to a successful health systems integration (Suter et al., 2009).

However, previous studies have not considered these barriers to the pharmacist integration as part of a policy process, where health reform is a result of a continuing policy process. Many issues are brought to policymakers' awareness on a daily basis, but not all of them can capture their attention and lead to new policy formulation (Herweg et al., 2017; Kingdon, 2011). In fact, policy formulation depends not only on the policy proposal *per se* but also on the political environment, including key advocates and their strategies, the support or opposition of interest groups, the political power of these interest groups, and the openness of policy windows (Herweg et al., 2017). The likelihood of policy change hinges on the continuous interplay of these factors during the policy process (Herweg et al., 2017) and remains unaddressed in the literature. We aim to address this gap in the literature through the lens of a policy process framework—the Multiple Stream Framework (MSF) to gain an understanding of why pharmacists have not been better integrated in Australia—using data generated via interviews with healthcare leaders across relevant disciplines. We focus here on collecting data from those who hold positions of direct policy influence to best understand the political policy-making environment. Our findings provide insights into similar policy debates both in Australia and internationally and can help policymakers be better prepared for when the next policy window opens.

2. Methods

2.1. Theoretical framework

The MSF, developed by Kingdon in 1984 (Kingdon, 2011), has been widely used for health policy analysis (Bailey et al., 2017; Baum et al., 2013; MacKillop & Sheard, 2018), and addresses the aim of this study, that is, to identify not only why the change has not occurred to date but also how likely it is to occur in the near future and what requirements are necessary for that change to occur. The MSF focuses on why and how certain issues catch policymakers' attention and are framed as public problems (Herweg et al., 2017). It investigates five essential elements: problem stream, policy stream, politics stream, policy window, and policy entrepreneurs (Fig. 1).

The *problem stream* frames issues or conditions as public problems, while the *policy stream* investigates the broad policy community's

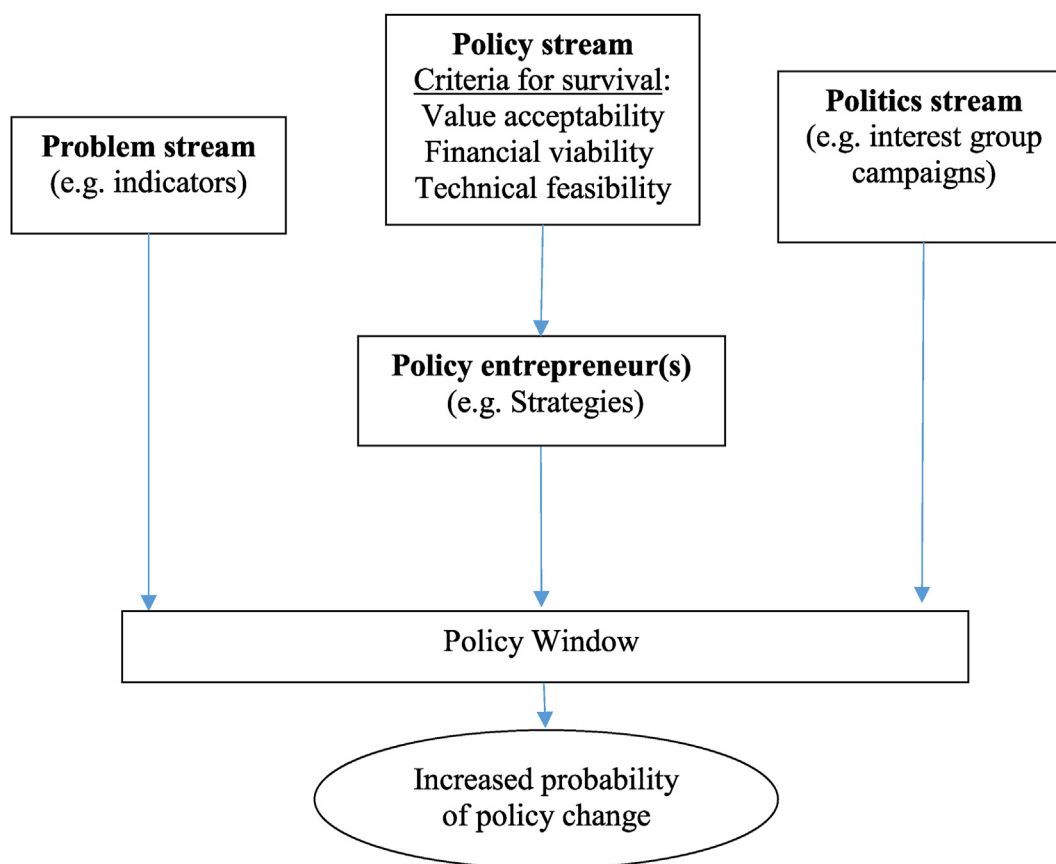


Fig. 1. The multiple stream framework (MSF) (adapted from Herweg et al., 2017).

collection of ideas and possibilities to solve the issues framed under the *problem stream*. Successful ideas that can survive and gain wider support from the policy community have to meet certain criteria: 1) the value of the potential proposal must be widely accepted (value acceptability), 2) the proposal must be technically feasible to implement (technical feasibility), and 3) the resources required to implement the proposal must be available (financial viability). The *politics stream* consists of the national mood (e.g., public opinion) and interest groups (e.g., the partisanship of policymaking institutions), and the *policy window* refers to a critical moment of opportunity when the *problem, policy and politics streams* converge to implement policy change. *Policy entrepreneurs* are the key advocate actors who bring the three streams together and advocate for the change once a policy window opens (Sabatier, 2014).

2.2. Data collection and sample

This study is based on a realist paradigm (Grbich, 2013) using qualitative methods to explore the research questions and followed the CONSolidated criteria for REporting Qualitative research (COREQ) checklist (Tong et al., 2007) (see Supplementary 1- COREQ checklist). The interview guide comprised open-ended questions about respondents' perceptions about pharmacists' current contribution to primary care in Australia. Respondents were encouraged to discuss the arguments behind any recognised problems and possible solutions as well as the political environment related to the integration of pharmacists. The interview guide was piloted with five pharmacy academics, of whom two are also working in a community pharmacy as their second employment and one economist academic who has an interest in pharmacy research. The interview guide (see Supplementary 2- Interview guide) was refined based on the pilot's results.

We used a snowball sampling method (Owen-Smith & Coast, 2017) to recruit Australian participants from nine main groups of stakeholders:

government employees of the Department of Health (GovPs); representatives of four pharmacy associations (PARs), which are the Pharmaceutical Society of Australia (PSA), Pharmacy Guild of Australia (PGA), Pharmacy Board of Australia (PBA), and Pharmacy Council of Australia (PCA); pharmacy academics (PAs); hospital pharmacists (HPs); community pharmacists (CPs); health economists and health service analysts (HEs); general practitioners (GPs); representatives of allied health professional associations (AHPs); and consumer advocate representatives (CRs). Initially, key informants from each group were identified, and they were asked to recommend other respondents within their networks at the end of their interview (Owen-Smith & Coast, 2017). All respondents were selected based on their influence on the profession regarding either regulation, education, or policy to identify potential policy options for the integration of pharmacists. We focussed on respondents with some level of policy power rather than practising community pharmacists whom we thought are tied with their current working environment which may limit their vision on any potential future policy options. All respondents were approached by emails which included detailed information about the study (e.g., study aims, research team, ethic approval) and an invitation to participate. Consent was implied when informants replied to the invitation email to agree to participate (and this was articulated to informants) and was confirmed at the start of the interview.

One-on-one, semi-structured interviews were conducted between January and April 2018 by the first author, TT. Of 59 participation invitation emails, 20 had no response and 6 was declined due to a lack of time. There was a total of 33 interviews that were 60 min long, on average, and they were either held face-to-face or using telephone/Skype (22 over the telephone and 2 via Skype), depending on the respondents' geographic location and preferences. Face-to-face interviews were conducted mainly with respondents at their workplace. Two interviews included the presence of non-participants (e.g., participants' secretary); in some cases, non-participant presence could not be verified in online

Table 1
Research participant characteristics.

Participant groups	Gender		Level of leadership		Total
	Male	Female	High	Low	
Pharmacy association representatives (PARs)	3	5	4	4	8
Economists and health service analysts (ECONs)	4	1	3	2	5
Pharmacy academics (PAs)	4	2	4	2	6
Government officers with pharmacy background (GovPs)	1	3	1	3	4
Hospital pharmacists (HPs)	1	0	1	0	1
Allied health professionals (AHPs)	0	3	1	2	3
General practitioners (GPs)	1	2	3	0	3
Consumers health advocates (CRs)	0	2	1	1	2
Community pharmacists (CPs)	1	0	1	0	1
Total	15	18	19	14	33

Notes: High: Head of associations/department/centre/university.
Low: Member of associations or staff, not the head of the department/centre/university.

interviews with the absence of video functionalities. Our sample includes 19 leaders of their institutions with high influence on pharmacy regulation, education, or policy; see Table 1 for respondent characteristics. Data were collected in audio recorded form and were transcribed by TT, an administrative staff member, and an independent transcription company (Digital Transcripts). Noting that our respondents had busy work schedules, TT utilised her field notes taken during the interviews to clarify any conversation points of interest to ensure that no repeat interviews or transcripts returned for further clarification were needed. The manuscript draft was returned to only one respondent at the request to check the quotation anonymity. We used Nvivo-QSR International (version 12) to assist the data analysis process.

Confidentiality of information was maintained in line with ethics approval obtained from the Ethical Review Committee of [Anonymous] University (reference no: 2017/881) and [Anonymous] University (reference no: 11,845).

2.3. Data analysis

We adopted thematic analysis (Braun & Clarke, 2006). First, TT and JS separately analysed two interviews using an inductive approach to explore the data. We developed code words or phrases that either reflected the content of the interviews or the research questions. The list of codes was then compared and resolved if there were any differences. As the data collection continued, TT also used a constant comparative analysis technique which allowed new codes to emerge. When no new codes were identified, indicating data saturation, no further interviews were conducted. The coded texts were grouped into themes which were

then considered in light of the MSF (see Fig. 2) and constantly discussed among the researchers.

2.4. Research team and reflexivity

TT, a female doctoral candidate, was trained in two intensive qualitative research courses, a one-week course delivered by a qualitative researcher with expertise in social science and a two-day course held by a qualitative researcher in health economics. As an overseas trained pharmacist, TT had no prior contact with respondents or previous views of the Australian pharmacy policy landscape. This allowed for nuanced exploration of the research questions even where sensitive issues such as political rivalry were explored in detail, and an analytic distance was maintained. No relationship was established prior to study commencement except exchanging invitation emails between TT and respondents. At the beginning of the interviews, TT explained the aims of the study and her research interest as a doctoral candidate to respondents. The last author, an Australian-trained pharmacist with clinical experience, was involved in the respondent recruitment and the interpretation of the policy contextual factors in the data analysis. Other authors contributed to the discussion of theme development based on research interest.

3. Results

Six key themes emerged from the data analysis. First, in the *problem stream*, respondents framed problems that arose from both the demand and supply sides of the primary healthcare market. Second, in the *policy stream*, they proposed integrating pharmacists into the primary healthcare network to solve these problems. Third, regarding the *survival ability criteria*, they identified current conditions that do not support the policy proposal's survival, and fourth, in the *politics stream*, they understood that political barriers appear to be the key obstacle to the reform—both of these themes prevent agreement on the policy being implemented. Fifth, under the *policy entrepreneurs* theme, respondents also urged some key advocates to adopt a more active role in advocating their vested proposal. Sixth, under the *strategies* theme, respondents suggested how to enable policy adoption in the future. Fig. 2 presents these key themes, which are explained in detail in the next section.

3.1. The problem stream

Respondents raised issues in the Australian primary healthcare system, both from the demand and supply sides of the healthcare market.

3.1.1. Problems on the demand side

Respondents highlighted issues of increasing healthcare demand due to changing population and lifestyle demographics. They said that the increasing prevalence of chronic conditions requires frequent monitoring of conditions, managing medication regimes, appropriately using a

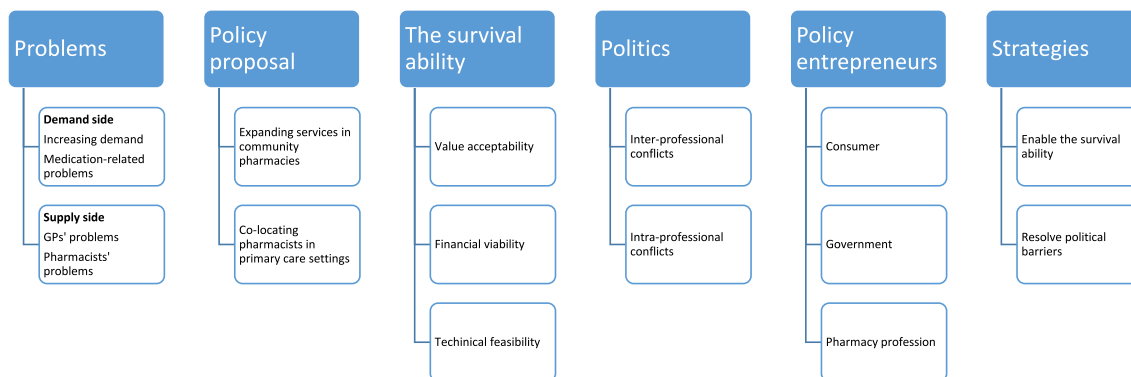


Fig. 2. Main themes.

medication, and providing lifestyle education. A CR reasoned that GPs may be over-qualified for some of these services thus, “*accessing a general practitioner and paying for it, just to get your blood pressure taken or to get a diabetes blood glucose test, is just a terrible waste of resources for the patient*” (CR07).

Most respondents viewed that medication-related problems are an increasing burden. They commented that “*people are living with much more complex comorbidities. [...] So people are being prescribed more and more drugs, and there's a lot of harm associated with inappropriate medicine use*” (Gov18). Due to complex medication regimes, consumers have higher chances of medication-related problems due to medication interactions, patient confusion, or lack of therapeutic monitoring or care coordination. One PAR stressed the economic consequences of medication-related problems when reporting “*230,000 hospital admissions each year because of medication misadventure costs \$1.2 billion*” (PAR1). Many respondents urged to reduce this preventable burden by providing consumers additional support to ensure the appropriate use of medication.

Although medication-related problems may occur throughout the care continuum, GP and CR respondents were especially concerned about the transition between secondary and primary care, which is believed to contribute to the prevalence of medication-related problems. For example, one GP said that “*often they [patients] don't have clear instructions about what their new medications are that have been started when they're in hospital. Often doses have changed while they're in hospital, and that's not well communicated to the GP*” (GP21). The discontinuity of care and the lack of medication reconciliation may have caused medication-related problems, “*particularly with older people with a lot of confusion and poor compliance with the changes*” (CR22). These problems have brought about a need for better collaboration of primary and secondary healthcare systems for better community health care.

3.1.2. Problems on the supply side

In the data, respondents articulated a perception of supply side problems including a lack of prioritisation of medication management issues for GPs and underuse of the pharmacist workforce to deal with increasing healthcare demand and medication-related problems.

GP respondents identified a number of problems they experienced in managing medicines such as “*keeping up with the latest kind of medicines and the evidence base support them other than what the drug companies come up with*”, thus “*getting some independent advice [...] I remember finding challenging, especially as a junior doctor*” (GP30). Furthermore, “*there are the time pressures on GPs*” (GP22), so they may not be easily accessible for patients. These issues may prevent GPs from optimally resolving medication-related issues for patients.

In contrast, pharmacists having medicine and healthcare training are underused as a CR mentioned “*they're [pharmacists are] a trusted profession, they're a trusted setting and an accessible setting. So I think pharmacists are under-utilised as primary care resources*” (CR22). A GovP further questioned the current use of the pharmacist workforce by saying “*we just have got this very expensive technician [pharmacists] that have just spent five years training [...], and then we just ask them to do something that a technician could do with maybe six to eight months' worth of training*” (GovP18). Furthermore, respondents raised the inefficiency issue in the current funding system which also contributes to the underuse of pharmacists' skill set. The funding which mainly supports the pharmaceutical supply arguably incentivises pharmacists to “*allocate most of their resources to their supply of pharmaceutical*” (PAR1) rather than expanded services which represents a better use of their expertise.

While the prevalence of medication-related problems is increasing, many respondents pointed out that the supply side of the healthcare market fails, to some extent, to provide either sufficient and/or efficacious medication management. Respondents mentioned that pharmacists are quite “*separate from the rest of primary care team*” (ALP14) or “*not really included in the loop, for example when a patient is discharged from*

hospital with a multiple medication, it's rare that the pharmacist gets to hear about it” (GP26). They mentioned that there is a lack of inter-professional cooperation between GPs and pharmacists in the primary healthcare network as a GP said:

They (pharmacists) don't get out very much [...] it's only when you (GPs) make a glaring error or if you prescribe something that is not available, that the pharmacist might actually pick up the phone and ring you. (GP21)

3.2. The policy stream

3.2.1. Policy proposal

Most respondents proposed a policy to better integrate pharmacists into primary healthcare. This proposal refers not only to co-locating pharmacists in primary healthcare practices but also to expanding pharmacists' services in existing community pharmacies, building close collaboration with other health professionals. However, respondents did not reach an agreement on what direction the policy should move between these two directions.

3.2.1.1. Provision of non-medicine related services in community pharmacies

Regarding the expansion of services in community pharmacies, respondents have different views on types of appropriate services. Most respondents agreed that medicine-related services (e.g., medication review, chronic disease management, and residential aged care services) should be the main focus of the policy as pharmacists are highly qualified health professionals with expertise in medicine and medication management are their “*unique and particular skill set*” (PAR3). This could help better utilise the pharmacy workforce while creating less chance for turf wars from other members of primary healthcare.

In contrast, the provision of non-medicine-related services such as blood pressure monitoring, glucose blood monitoring, weight management, and health education did not gain wider support. Supporters of non-medicine related services reasoned that pharmacists are one of the most accessible health professionals as “*the average Australian sees a pharmacist 13 times a year and I know that 80% of the population sees a GP at least once a year*” (CR22). One PA respondent suggested that pharmacists providing non-medicine-related services may contribute to chronic disease management if they collaborate closely with GPs and with the help of electronic health records, as he reasoned the following:

If you get a person with hypertension, they might see the doctor twice a year. They see the pharmacist 12 times a year. Why wouldn't the pharmacist every time someone comes in for a repeat prescription with anti-hypertensions to take their blood pressure, record it on the My Health Record so when the patient goes back, the doctor can look at a 6-month period of blood pressure readings. (PA02)

Supporters also argued that these non-medicine related services may contribute to medication management and long-term health benefits for patients, for example, “*you[pharmacists] could do blood pressure monitoring if you're going to change the medication as a result of that*” (AHP14).

As highlighted under the problem stream, GPs may be over-qualified for some disease monitoring and lifestyle and health education services and have time constraints. Several supporters argued that the accessibility of community pharmacies could allow patients convenient and timely access to these screening and preventive services, freeing up the GP, which “*take pressure off other parts of the health system [...] where that is not always needed to be done by that practitioner*” (PAR20). Furthermore, a GP reasoned that pharmacists are well-trained health professionals who “*could also be another reinforcing element of the healthcare system for health promotion advice*” (GP20).

Meanwhile, opponents expressed concern about the potential fragmented healthcare system when different health providers serve the

same services. For example, a GP reasoned “if you fragment people's care and you encourage them to stay away from GPs, rather than engage with GPs, you lose continuity and when you lose continuity, you lose effectiveness.” (GP21)

3.2.1.2. Co-location with other health professionals. Respondents also had different views about whether pharmacists should co-locate with other health professionals in general practices, clinical settings, and aged care facilities. Supporters highlighted the benefits of the co-location are to improve medicine management as “it's difficult for GPs to keep up with all the new advances in the medicine side, and to make sure about interactions” (HE06). Pharmacists with their medicine expertise could contribute to “identifying high-risk patients within the practice and then working with the GP to create a management plan around the medication-related issue. So they really have to be within the practice doing that kind of work, and having some kind of face-to-face or some kind of communication where they can exchange those ideas and management plans” (GP21). In addition, co-location could “help(s) GPs to understand what a pharmacist can do besides dispensing, get them used to work collaboratively, open up that relationship more” (GP26). This could be the first step to enabling the integration of care where services are coordinated. The co-location option also could strengthen inter-professional collaboration when different members of the primary healthcare network could work closely.

However, there are objections to the co-location option, specifically to pharmacists working in general practices. One PAR was concerned about the potential fragmented healthcare where the medicine supply from community pharmacies and medicine management support from pharmacists integrating into primary care settings are separated and may be poorly coordinated. This could decrease the effectiveness and efficiency of healthcare.

It creates that risk and also that complexity for the patient. The patient will one day be talking to their pharmacist about their medicines and medicine management and then the next day if they are in the GP practice with another pharmacist, they may get told something different. (PAR20)

Moving away from the traditional community pharmacy models, respondents suggested another option of co-location could be a partnership model of community pharmacies. Under these pharmacies, all health professionals including pharmacists, nurses, GPs, dieticians etc. can work closely together, which could allow consumers to efficiently access all necessary services in one visit.

3.2.2. External influences on the policy stream

Policy mobility, as evidenced when ideas are adopted in other jurisdictions, inevitably have a significant impact on the development of this policy proposal. The pharmacist integration in other developed countries set good examples to motivate a similar policy in Australia. A PAR explained that “there's no reason why we shouldn't almost replicate the services that a pharmacist is providing in other similar structured countries like the UK and Canada to a certain extent, and New Zealand to a certain extent” (PAR19). Further, the successful integration of hospital pharmacist in Australia is another influence on the policy proposal “in the hospital pharmacy setting the supply and professional services have been decoupled for a long time, probably 20 years [...] I think that model could be translated into an alternative community pharmacy” (Gov18).

3.3. The survival ability of the integration policy proposal

The MSF suggested that the survival ability of the integration policy proposal is one of the keys to the success of the policy adoption. Specifically, to satisfy the criteria for survival, the policy proposal must be widely acceptable, financially viable and technically feasible. Thus, we examined the survival ability of the pharmacist integration policy to understand whether the policy stream is ready to enable a policy change.

3.3.1. Value acceptability

The MSF suggested that policy ideas that gain wider support from policymakers have a higher adoption chance. As Section 3.2.1 presents the debate between different aspects of the policy in terms of the types of expanded services and the co-location requirement of pharmacists with other health professionals, the policy of integrating pharmacists into primary care in Australia has not gained wider acceptability among policymakers. Thus, the policy does not satisfy the criterion of value acceptability.

3.3.2. Financial viability

Some respondents were concerned that the current payment system does not ensure the financial viability for both directions of the integration policy. They reasoned that the government funds the pharmaceutical supply (through dispensing fees), which forms a significant component of pharmacists' income. Some respondents claimed that this payment system incentivises pharmacists to prioritise and maximise their supply function rather than the provision of advanced services. The sustainability of expanded services depends on the cross-subsidy from the dispensing services, which make them independently financially viable, as one government respondent mentioned:

[T]he only way that [community pharmacy] owners make money is through dispensing [...] If you've got a really keen pharmacist, and they take their own initiative to do some sort of chronic disease management, or asthma counselling or something like that, they don't actually get reimbursed for it [...] so they're at a disadvantage. (Gov9)

Respondents highlighted that there is no funding for pharmacists integrated into other primary care settings. At the time of data collection, the government funding is through the dispensing fees specified in the Community Pharmacy Agreement, for which the PGA is the sole participant in the funding negotiation with the government. As such, “the government could require [...] that those people [pharmacists] that work in GP practice have access to government money. The problem with that is that the Guild (PGA) says it is our money [Community Pharmacy Agreement funding]” (PA2).

3.3.3. Technical feasibility

The MSF suggested that the policy idea needs to be technically feasible, which means resources used for the implementation of the policy need to be existing or conveniently ready for existence (Kingdon, 2011). Pharmacists as the main resources are easily called for the policy implementation as respondents articulated that pharmacists are qualified but underused health professionals. However, to ensure the quality of non-medicine-related services, some respondents suggested that pharmacists still need extra training for these services as an HE mentioned that “we've seen that with just the flu injection, the pharmacists have to go and get the training to be able to administer an injection” (HE06). Because the extra training is short and easily done, the availability of the pharmacist workforce makes the policy of integrating pharmacists into primary care technically feasible.

However, respondents emphasized the role of a shared health record system [known as My Health record]¹ in the success of a true integration of pharmacists into the primary healthcare network. Currently “pharmacists work largely in an information vacuum. So often what happens is the only information that you've got about a patient is your dispensing history. And what they may tell you which may or may not be accurate. Certainly not verifiable clinical information” (PAR1). To ensure the quality assurance of pharmacist services, respondents urged a need to access the My Health Record:

² At the time of interviewing (January to April 2018), 33% of pharmacies signed up to the My Health Record system which is a shared health record system operated by the Australian Government (The Australian Digital Health Agency, 2019). It is noted that this figure was relatively early in the national role-out and estimates have since increased.

Pharmacists should routinely be able to access the My Health record system so that they understand what the co-morbidities and the allergies that the patient has. [...] This is unfortunately quite common because the allergy status of somebody is not accessed by pharmacists. If they were able to access the My Health Record system then they'd know that. But currently, I don't know that they do (GP26)

We need to see all of this [access to the My Health record] happen urgently. The whole – not just pharmacy, but all of the health system requires a big push in terms of reform of the way we prescribe and dispense and hold our patient records (CR7).

In addition, respondents mentioned that other health providers cannot acknowledge pharmacists' services, thus, this might increase the potential duplication of care and hinder the inter-professional collaboration.

3.4. The politics stream

The political environment emerged as the most influential barrier to the integration of pharmacists in Australia. Respondents reported organisational tensions among the pharmacy and other health professions. These tensions appear to prevent the adoption of the integration policy.

3.4.1. Inter-professional tensions

Respondents articulated the fact that the policy introduces the expansion of pharmacists' services, some of which are currently delivered by doctors and other health professionals. This may threaten their professional boundaries and lead to a potential 'turf war' from other health professions. The other contributor to inter-professional tensions is the perceived loss of revenue under the current fee for service funding model with the assumption being that the service lost by the GP would not be supplemented by delivering a service for another need or patient. As such, the integration policy is not politically accepted due to opposition from other health professions, especially their associations such as the Royal Australian College of General Practitioners (RACGPs), the Australian Medical Association (AMA) and the Australian College of Nursing (ACN). As these associations represent powerful interest groups, these objections appear to be significant political barriers to the pharmacists' integration. One GP explained:

The AMA's position on pharmacists providing professional services is that they see it as encroaching on the turf of medical practitioners [...] they'll (AMA) never support it and their level of paranoia is probably the highest [...] on a scale of 1–10, the AMA's 10, the nurse resistance would be about a 1 (GP26)

GP respondents reasoned that the inter-professional tension may be a result of inadequate inter-professional collaboration in the development and implementation of the policy proposal. The policy proposal was developed in distinct initiatives of the pharmacy profession while it inevitably has broad implications on other health professions. This lack of collaboration combined with a failure to establish a common ground for the policy proposal may account for ongoing conflicts over the policy legitimacy as one GP said the following:

There is no kind of formal communication avenue between even the College of General Practice and the pharmacy bodies [...] So often it's a battle for territory rather than coming together to discuss these kinds of issues. (GP21)

3.4.2. Intra-professional tensions

Political barriers are also intensified by the conflicts among different pharmacy associations. The two key associations of the Australian pharmacy professions, the PSA and the PGA, although largely agreeing on policies that support better pharmacist integration, differ in their

strategies to advocate for the policy implementation. Several GovP, PA, PAR and CR respondents commented that the two associations represent different missions and visions of different pharmacy groups. They emphasized that one association focused on the financial benefits of the expanded roles, the other association supported the integration of pharmacists to foster the educational and professional development for pharmacists. As such, their conflicted vision and strategies for the development, implementation, evaluation of the policy prevent the policy from becoming more widely accepted (i.e., the policy fails to satisfy the value acceptability criterion).

They [PSA]ve got the interests of the profession and its career pathways and ensuring that work ready pharmacists are getting as many opportunities to exercise their scope of practice and their skills as possible. (CR22)

[T]he Guild (PGA) [...] goes down the path of they're advocating for increased services, increased remuneration. Because their prime role [...] is to ensure the viability and functionality of community pharmacies. (PAR19)

Respondents reasoned that while the PGA is the most politically powerful group with "a lot of political power" and being "strong lobbyists" (GovP18), their conflicted vision and strategies for the development, implementation and evaluation impose difficulties on the value acceptance and financial viability of the policy. For example, a CR explained that the ignorance of the PGA on the appraisal of service yet to be evaluated hindered the funding to ensure the financial viability of the policy.

The more that it's resisted by the Guild and others to do appropriate programs and appropriate appraisals of these programs, the more vulnerable the whole workforce will be in terms of not being able to deliver and be involved in professional work. (CR7)

Additionally, some GovP, PA and PAR respondents expressed their concern where only one politically powerful association (i.e., the PGA) represents the whole pharmacy profession in the funding negotiations with the government. This may distort the direction of the funding allocation especially when the representative association does not support the whole pharmacy workforce but only community pharmacy owners. This may decrease the financial viability and the implementation of the integration of pharmacists into the primary care system. A PAR emphasized:

[T]he profession can't expect its future to be determined by one lobby group, because [...] they're very transparent about their interests [which] are the community pharmacy owners. They're not interested in non-owner pharmacists, that's not who they're advocating for. (PAR24)

3.5. Policy entrepreneurs

To promote the integration policy to the national decision-making process, respondents recommended that the national government, the pharmacy profession, and consumers should play leading roles in policy advocacy.

Some PA and CR respondents believed that consumers as the demand factor are a key stakeholder of the reform. Population needs are the key driver for any reform to increase supply, increase access/efficiency and reduce costs. However, whether the integration of pharmacists gains the support from consumers depends on their needs and their awareness of pharmacists' services as a PA reasoned "if the consumer has no need for it or if the consumer has a need but does not know that the [pharmacy] profession is the potential solution to their need then there is nothing" (PA04).

In contrast, some PAR and CR respondents articulated that the government needs to establish strategies to best solve the issues of increasing

population healthcare needs and medication-related problems. This may include a broader policy vision about the development of the primary healthcare network and a policy framework to direct the long-term contribution of pharmacists to the population. As a CR commented that “any future directions for community pharmacy I think need to be considered in the context of a primary and integrated care strategy for Australia, which we currently don't have” (CR22). Respondents also referred to the prominent role of government in other countries in designing policy strategies for the integration of pharmacists, which can set good examples for Australia as a PAR said “they [other countries] had the ability of the government setting the agenda, saying “This is what we want out of pharmacy”, and that happened both in the UK and New Zealand. And that to me makes it a more structured and a more targeted approach, and easiest to meet” (PAR19).

However, as this policy directly affects the future viability of the pharmacy profession, there is a general feeling that the pharmacy profession should be the key advocate for the integration policy. “[I]t's got to be made by the profession because nobody, no one else in the medical profession and the government itself doesn't owe community pharmacists a future. They have to determine their own future” (HE06). Respondents suggested that pharmacists should adopt a more active role in identifying population needs and propose what they can offer to solve the issues and seek wider support from the policy community.

3.6. Strategies to prepare for the next policy window

To ensure success the next time a policy window opens, respondents suggested some strategies to enable the survival of the policy proposal and resolve the political barriers.

3.6.1. Enabling the survival of the policy proposal

To make the policy of integrating pharmacists into primary care widely acceptable, respondents specifically recommended several strategies. First, they suggest the pharmacy profession should develop the roles of pharmacists in light of the population's care needs. As population needs are the driver of the market, it is important “to make sure that the services that we're delivering are actually meeting the needs of consumers across the population” (PAR24). Second, respondents stressed the importance of evidence-based practice to make the policy acceptable. It is critical to show the contribution of pharmacists as “for a change to take hold it's got to be good for pharmacists, it's got to be good for the patients, it's got to be good for the funder [...] it's got to be good for the medical neighbourhood” (GP26). As rigorous and objective evidence makes it easier to gain acceptability from a wider policy community, doing this then can make the policy meet the value acceptability criterion. Lastly, specialisation and accreditation were suggested to ensure the quality of pharmacists' expanded services (e.g., being recognised as a diabetes specialist or chronic disease specialist) to increase the policy's acceptability. However, one PAR disagreed with this specialisation suggestion by reasoning that with the increase of multi-comorbidity, “its [specialisation is] not very holistic [...] it needs to be delivered in the context of a broader, more patient-focused approach” (PAR24).

To make the policy idea financially viable, some respondents suggested some remuneration reform models. By acknowledging that pharmacists are not currently entitled to consultation fees, one economist respondent suggested that “they[pharmacist] should be funded in the same way as other health professionals which is a certain degree of MBS (medical benefits scheme) funding” (HE06). Otherwise, respondents suggested that the government could subsidise pharmacists' services through a funding package for some areas of healthcare needs as one AHP suggested that “you [government] could give pharmacy a bite of - because I'm pretty sure you [pharmacists] don't have it now - of the few chronic disease numbers that allied health have” (AHP14).

Although the policy is technically feasible, most respondents stressed the adoption of a shared health record system as a key to the integration of pharmacists. As “the electronic record [...] would improve the communication between a pharmacist and the general practice” (HE17), it could

promote inter-professional collaboration and help increase other health professionals' awareness of pharmacists' contributions.

3.6.2. Resolving the political barriers

To overcome the political barriers, respondents recommended considering the problems from the consumer point of view rather than via a particular professional view. Common ground should be established for the problems of population needs and how to best develop the primary healthcare system to meet these needs. That is “it should be fit for purpose and also what's needed in particular areas. So there may be different services needed in a rural and remote area compared to a city or an urban focus” (PA27). By focusing on population needs, it helps not only to diffuse the discussion about the differences in the sustainability of rural and metropolitan services but also assist the policy evaluation “because you end up having people who don't really necessarily benefit from a service, receiving a service, just because it's available. When you measure the outcomes, the outcomes are not as good as they could be if the services were targeted to people who really need it” (PAR24). A focus on population need also helps to reorient the inter-professional conflicts into better policies for better public health, where “It is not the boundaries of profession but what needed and who can deliver the services in where” (CR07). Further, accumulating evidence to show “what a pharmacist does makes a difference and adds value to a health system” (PA27) could reorient the currently opinion-based debate towards evidence-based practice which, then, could mitigate the inter-professional tensions.

Lastly, inter-organisational collaboration during the development of the policy proposal is critical to reducing conflicts over the organisation's mission. Continuous collaboration with a range of multidisciplinary stakeholders where “they have all the professional groups involved [...] I think greater alignment and professional collaborations with the allied groups in health [...] to go as a united front in negotiations with government” (PA27) could allow the policy to evolve through constructive management of differences.

4. Discussion

This study has presented an analysis of why the policy on the integration of pharmacists in primary healthcare has not been addressed at the national level in Australia, drawing on data generated via interviews with key stakeholders influential in health policy. The MSF provides a useful framework to think through the reasons why this change has not yet succeeded in Australia even though shared problems have been well articulated among key stakeholders. We found that both the *policy* and *politics streams* are not yet ready for a policy change. Furthermore, the roles of *policy entrepreneurs* have not been strong enough to better support pharmacist integration through policy initiatives.

Regarding the *policy stream*, our study revealed that the policy proposal cannot survive under the current circumstances. Specifically, the policy is not financially viable, which was supported by the literature (Hermansyah et al., 2017; Hossain et al., 2018). While others may argue that national funding has resulted in some evidence of advanced service expansion (Hermansyah et al., 2017), many of them are cross-subsidised by the pharmaceutical supply, and there is inadequate funding for pharmacists working in other primary settings. Furthermore, the *politics stream* is not ready for policy change due to inter-organisational tension among the pharmacy and other health professions. Powerful interest groups within these professions do not share the same vision on the policy's direction, which has prevented the required conditions for the survivability of the policy proposal. For example, although pharmacy associations largely agree on the pharmacist integration policy, they have different views on how it should be implemented, which constrains how best to advocate the policy proposal to gain wider support from other interest groups. As health reform is inherently political (Roberts, 2008), the division in the pharmacy profession and the objections from other health professions have significantly prevented policy change in Australia and could be a lesson for other countries when advocating for better integration of pharmacists.

Recently, the Australian government has recognised the “*quality use of medicine and medicine safety*” to be a National Health Priority Area (Australian Government, 2019), a strong indicator that the issue, i.e., the need to reduce medication-related problems and to maximise the gains from medication use, was clearly recognised by the government. This means *the problem stream* is ready to converge for a policy change according to the MSF. To ensure success the next time a window is open, our study suggests several strategies that reform advocates could consider in order to ensure “*the policy stream*” and “*the politics stream*” are also ready for a policy change.

Firstly, to increase the value acceptability criterion of the policy proposal, it is important to build and compile rigorous evidence about the effectiveness and efficiency in resource use of various pharmacist service programs. As our findings show the pharmacist integration policies have faced intense partisanship, an evidence-based, consumer-focused policy approach can help bridge the interprofessional divide and support the policy discussion about what outcomes are desirable, for whom and at what cost. This requires various policy advocates - especially the pharmacy profession, consumer groups and (state and national) governments collaboratively develop a rigorous objective evaluation framework that measures the impact of various pharmacist professional service initiatives across the country. By focusing on outcomes, any particular policy proposal proving its effectiveness and efficiency of resource use inevitable increase the chance of partisan agreement. Secondly, advocates could continue to raise awareness and propose additional initiatives promoting the role of pharmacists within a multidisciplinary team. This could include remunerated services linked with other “touch points” of the health system such as following patients discharged from hospital with high-risk medications or involvement in case-conferencing activities. Although examples of such services exist around Australia, government policy and remuneration has not been implemented either nationally or at a state level. Financial remuneration is vital for any policy proposals, as shown in the UK case study where the integration of pharmacists (which started in 2005) was a result of a change in legislation to allow pharmacists to receive payments for their services. Last, to ensure the policy proposal's technical feasibility, more extensive use of the shared health record in primary healthcare is an important enabler to provide accurate clinical information to ensure the quality of pharmacists' expanded services and to enhance collaboration among health professionals. This is not to downplay the goodwill already shown by community pharmacists in the uptake of My Health Record, but to encourage further research and quality improvement activities to enhance the key functionalities required by pharmacists to provide professional services, including medication safety services.

We also recommend some strategies to ensure that *the politics stream* is ready for a policy change. Firstly, to resolve inter-professional conflicts, one option could be to frame the policy proposal with a focus on population needs and health benefits. For example, the UK case study argues that the integration of pharmacists helps increase patient access and healthcare choices (Department of Health, 2000). Similarly, in Australia, a clear articulation of the shared problem, i.e., the need for improvement in the type and number of services designed to meet the population's healthcare needs, could lead to a refocusing of alternative policies acceptable to all stakeholders. Alternative approaches could be to deliver healthcare services based on one of the acceptable criteria such as either efficiency, lowest costs, or highest consumer satisfaction (assuming an equal safety profile). Then, under these approaches, the role of pharmacists (and other health professionals) could be revised accordingly. Another option is to adopt a more flexible approach to the training program of health professionals to specifically address the population's needs (Duckett, 2005). This may move the debate away from the boundary of professions into a more task-oriented focus, which may also help to reorient the debate into a positive light and bring forth new solutions not yet discussed in depth.

Various contemporary systemic issues may prevent community pharmacists from building the necessary collaboration with GPs and

other healthcare. These issues could range from high workloads tied with the business models of community pharmacies and the legal requirement for the presence of at least one pharmacist during community pharmacies' opening time (Hossain et al., 2018), little or no remuneration for collaborative care (Dineen-Griffin et al., 2020), limited care pathways that involve community pharmacists within a multidisciplinary team or a lack of two-way inter-professional trust (Bradley et al., 2012). However, these systemic issues are difficult to address and require time and possibly different training programs for younger health professionals, as well as structural policy reforms. Enabling opportunities for collaborations such as embedded pharmacists will likely help with culture change and pragmatic workflow solutions, as one of our respondents articulated “*collaborative team arrangements, collaborative practices with GPs ideally, you know, and that can be facilitated in any number of ways or any number of system enablers. One is sort of the models of care that I was just talking about, like GP non-dispensing pharmacists in GP practices*” (CR22).

This study has some limitations. As our respondents were key stakeholders who are located mainly in urban areas, the geographic representation of respondents could be seen as a limitation. However, the views of these stakeholders who have knowledge and experience in the policy implementation are essential to address our research question which focused on why the pharmacist integration policy has not been adopted at the national level. Future research focusing on the strategies on how to implement the pharmacist integration policies across geographic locations could seek to better understand the views of key stakeholders in rural and remote areas, who continue to be under-represented in the policy arena. Secondly, no themes about “government and legislature” elements (Herweg et al., 2017), which refer to the support of key policymakers or legislature members, were identified in the interviews. With wider access to more participants, those elements may emerge. The context of some data collection has now changed due to policy changes, for example, the PSA is now a signatory on the Community Pharmacy Agreement (CPA) (The Pharmaceutical Benefits Scheme, 2022). This has been identified where appropriate. Another limitation is a lack of data from members of the Australia Medical Association or the Royal Australian College of General Practitioners due to their time constraints. Future research may consider these issues. Furthermore, follow-up studies should be conducted to validate our recommendations above (i.e. conditions for the “*policy stream*” and “*the politics streams*” to be ready for a policy change) if the policy has not yet been implemented even though those recommendations are satisfied.

5. Conclusion

Using a unique group of healthcare leaders and policy influencers across relevant disciplines, our study revealed several reasons why better integration of pharmacists in Australia has not been comprehensively addressed at the national level. We found that both the *policy* and *politics streams* are not yet ready for a policy change. We highlighted potential strategies that reform advocates may adopt to overcome political barriers and to secure adequate support from policymakers. These could include evidence accumulation, role development in light of population needs, and collaboration across members of the healthcare network. Such strategies could help unlock additional contributions of pharmacists in the primary healthcare network to meet population needs.

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Ethical statement

The study was approved by the Ethical Review Committee of Griffith University (GU Ref No: 2017/881) and the Ethical Review Committee of Monash University (MU Ref No: 11,845).

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary data

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