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Older people's experiences of nurse-patient telephone communication in the primary health care setting

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## Abstract

**Aim.** To determine which aspects of primary nurse-patient telephone communication are viewed positively or negatively in terms of meeting the older persons' needs.

**Background.** Health professionals are increasingly being called on to develop different ways of working and increase their capacity to meet the needs of an ageing population. In some countries telephone communication between primary nurses and patients in General Practice is already seen as a routine practice, but determining the value of this type of communication as a specific health service needs more understanding.

**Design.** A qualitative exploratory study as the aim was to explore the older person's experiences.

**Methods.** Semi-structured interviews were conducted with 21 older people from General Practices in New Zealand during 2014-2015. Thematic analysis was informed by a constructivist grounded theory approach.

**Findings.** The overarching theme was the difficulties older people face in making decisions about whether to contact a health professional by telephone and whether this should be the Primary nurse. Accounting for some of their symptoms as age related added to the uncertainty of decision making. Importantly some older people were not raising concerns e.g. emotional state.

**Conclusion.** Decision making by older people around treatment seeking is complex.

Increasing the awareness of the nurse role in the General Practice is integral to creating a health system which will meet the needs of a growing older population. Primary care practices can review their systems to better inform older people how the nurse telephone role as a specific health service works and what they can expect when using this service.

Key words: decision making, long term conditions, multimorbidity, nurse, nursing, older people, primary health care, primary nurse, qualitative, telephone communication

## SUMMARY STATEMENT

### **Why is this research needed?**

Internationally it is recognised that more flexible services in Primary health care are required to meet the needs of an increasingly ageing population.

Older people already face access issues in relation to primary care provision.

The routine practice of Primary nurses using telephone communication with older patients contacting the Primary nurse in General Practices is under explored.

### **What are the key findings**

Older people experience uncertainty in making decisions about contacting nurses via telephone in primary care.

Decision making is complex due to multimorbidity, ageing and not being clear about the role of the nurse in the Primary care team.

Older people may not raise certain concerns e.g. feeling low or depressed with health professionals, including the Primary nurse either face to face or over the telephone

## **How should the findings be used to influence policy/practice/research/education?**

General practices should review their structures and systems in partnership with their older patients to ensure they are making the role of the nurse explicit. Adopting a team based approach to care will be required. It is particularly important that older people have clarity regarding what the service entails and what the older person may expect when using the service. Ways to engage older people in raising emotional issues in a General Practice or researching other approaches to address this is warranted.

### **INTRODUCTION**

Internationally there is a drive to promote age friendly primary health care (PHC) with a focus on healthy ageing, defined as the process of developing and maintaining functional ability to support wellbeing in older age (WHO 2015). However, there is the recognition that health care services are not meeting the needs of the older person, particularly as the population ages and multimorbidity increases (Kenning, et al., 2013). Multimorbidity adds complexity for older people due to treatment burden and the multiple caring tasks and difficulties involved in completing these (Boyd, et al., 2014, Gallacher, et al., 2014). Health systems and health professionals are increasingly being called on to develop different ways of working and increase their capacity to meet the needs of an ageing population. Primary Care is seen as the pivotal place for this to happen and the World Health Organization calls for Primary Care to be more age-friendly (WHO, 2008). Importantly, it is recognised that these services should not be defined by health professionals but should be adaptable to meet the needs of the older person (Boeckxstaens, et al., 2011).

### **Background**

Approaches to care that improve timeliness of care provision without the need for face to face consultations are viewed as a means of transforming healthcare systems to be more responsive and accessible (Chumbler, et al., 2011). Telephone health care services are recognised as one way people can access a variety of health care advice and support systems (Middleton, et al., 2016). For older people telephone services are viewed as a possible option for improving services, particularly in relation to improving access and timely responsiveness (Pygall, 2012). It is recognised that telephone communication can ensure more affordable health care for certain groups (Arif, et al., 2014), a pertinent issue for many older people experiencing multimorbidity (Boyd, et al., 2014).

Previous research in New Zealand has identified that nurses working in General Practice value telephone communication with patients and that General Practitioners (GPs) also see this as a valid method of communication and as an important component of the primary care nursing role (Waterworth, et al., 2011). In New Zealand Primary health care is provided from General Practices in a business model and patients pay a fee for each consultation and charges vary across the practices. There are some specific schemes available for people with high needs so that the cost of frequent visits can be reduced.

A systematic review of telephone communication between Primary Nurses (PNs) and older patients with long term conditions (Raphael, et al., 2015) found a lack of research regarding the perspectives of older people about this type of service. In addition, most of the studies identified one long term condition and improving pre-determined disease-specific health indicators, rather than addressing the complex challenges posed by the multimorbidity most older people experience. Developing nurse telephone services in Primary Care could provide more flexibility for older people. However, a better understanding about older people's

perspectives regarding this type of service is needed to inform future developments. It was in this context that we designed the study presented in this paper which explored older people's experiences of nurse-patient telephone communication in the Primary Care Setting.

## THE STUDY

### Aims

1. Determine which aspects of Primary Nurse-patient telephone communication are viewed positively or negatively in terms of meeting the older persons' needs.
2. Explore how older people see the scope for Primary Nurse-patient telephone communication being developed further.

### Design

The design of this study was qualitative as the aim was to explore the older person's experiences in more depth. The study was informed by Charmaz's (2014) constructivist grounded theory approach.

### Sample/Participants

Patients were eligible for participation if they were over 65 years of age, English-speaking and had two or more long term conditions (LTCs) to fit the criteria for multimorbidity (Boyd and Fortin 2010). We decided on a target sample of twenty participants as research has shown this would be likely to be sufficient for theoretical saturation (Guest, 2006), although the final sample size was not determined a priori but following analysis. We approached six General Practices that had been involved previously in research as we were aware they were interested in understanding the experiences of older patients in their practice. The practices covered both rural and urban areas in New Zealand. Our aim was not to overburden the

practices with recruiting large numbers of participants, as the practices were already being expected to meet specific health targets which required further changes in practice.

Therefore, we asked them to purposively select between four and six potential participants meeting our inclusion criteria (diagnosed with at least two long term conditions and receiving nurse-telephone communication), ensuring approximately equal representation of men and women and, where possible, the inclusion of people of different ages, comorbidities and ethnicities. Out of 25 potential participants identified by practices, only four declined to be involved and reasons given included: not interested, too busy, or involved in other research.

#### Data collection

We offered participants within travelling distance of the research team to have a face to face interview. Four participants requested and completed a face to face interview at their home, whilst the remaining participants completed a telephone interview. Interviews took between 45-70 minutes and although we only conducted one interview with each participant they were aware that if we wanted to follow up on any questions we would contact them again.

Participants also completed a short socio-demographic questionnaire. Audio recording of the interviews ensured accurate representation of the interviews for data analysis. As we were asking participants about using a telephone service, it was important to use a similar approach for data collection.

The interview was guided by specific questions, but was flexible enough to allow new issues raised by a participant to be explored. Questions included: What do these calls consist of, what issues are discussed? Who initiates the telephone conversations? Experienced researchers, one a nurse and one a psychologist conducted the interviews and they were able to raise questions about possible sensitive areas such as, emotional concerns.



## Ethical considerations

The study was approved by the National Ethics Committee (Reference number 1/4/14/011043). All participants received written information and signed a consent form prior to interview. Prior to the actual interview consent was rechecked for audio recording and participants were reminded that they did not need to answer all the questions and could at any time ask for the interview and recording to be discontinued.

## Data analysis

Interviews were transcribed verbatim. To enhance rigour and trustworthiness two researchers reviewed the audio transcripts. Transcripts were then entered into the qualitative data analysis programme NVivo 10 for initial analysis by DR and SW (QSR International, Australia). The coding frame was grounded in the data rather than decided a priori. As in previous research (add reference post-review) detailed analysis was conducted by creating a process table informed by Charmaz's (2014) key questions, e.g.:

- Name the process, define it, how does this develop?
- How does the research participant act while involved in the process?
- What do they profess to think and feel while involved in this process?
- What might her/his observed behaviour indicate?
- When, why and how does the process change?
- What are the consequences?

The bold boxes in Figure 1 and Figure 2 show the major process codes with the subprocess codes. Demographic data were entered into Excel (Table 1).

## Rigour

A selection of transcripts (n=6) were independently reviewed and coded by SW and DR and codes compared and discussed to reach consensus. Discussion of the themes also took place with the third author (MG). Participants were sent a copy of the findings and asked to provide any feedback. Three participants sent specific feedback agreeing with the recommendations, but identifying constraints due to funding issues for developing the service further. Verbatim quotes from the data are used in this paper to allow the reader to make judgements regarding interpretation (Anderson, 2010). Codes in brackets indicate the participant's number and gender (Table 1).

## FINDINGS

Of the 21 participants who took part in the study, 11 were female (52%) and 10 were male (48%). Participants ranged in age from 66-90 years with the average age 77 years. All participants fitted the definition of multimorbidity that is having two or more long term conditions (Boyd and Fortin, 2010) with a range of two to nine conditions; eight participants had two long term conditions and the remaining 13 had three or more. Cardiovascular diseases were the main long term conditions with 18 participants (86%) having a cardiac condition. The next most common long term condition was diabetes with seven participants (33%) having diabetes, predominantly Type 2. Thirteen participants (62%) identified as New Zealand European, 5 participants (24%) as English and 3 participants (15%) as Maori. Five participants (24%) were living alone, with the remaining 16 participants (76%) married and living with their partner. Only two participants were currently receiving home nursing support for wound management.

Despite the study's focus on nurse-patient telephone communication, the overarching theme identified related more broadly to older person's decision-making as the key process and how this influenced whether they thought they should seek help and advice or not from Primary Care (Figure 1. Figure 2). Awareness of the nursing role and what they perceived as legitimate nursing work influenced the participants' decision making. In addition, accounting for some of their symptoms as age related added to the uncertainty of decision making. It was evident that certain concerns would not be raised either over the telephone, or face to face with a nurse or General Practitioner and system issues e.g. nurse availability were identified that could either limit or facilitate telephone contact with the nurse.

### **Should I call the GP practice?**

Many participants revealed uncertainty in their decision-making as to whether to contact a health professional. Most were living with multimorbidity. This involved making sense of symptoms and determining whether they fitted with a previous condition or diagnosis. In a sense the older person was making a self-diagnosis and then deciding whether they needed to contact the General Practice:

*I've just been thinking does Warfarin have something to do with how I'm feeling? You know, I've been like this for a little while now and I've never been like this before. But then all of a sudden, the last 2 or 3 months I'm just sort of getting out of breath. So, I'm wondering if it could be a touch of pneumonia. I have had it and just sort of the same sort of symptoms. I've had it for about the last month. I just thought like I feel a little bit exerted but it's just got worse. So then I suppose I better go and see what the Doctor can do and what he suggests. (P19M)*

Attributing symptoms to ageing was a reason for not making contact with a health professional. This was further compounded when the older person had several conditions and again this involved making sense of whether this mattered or not:

*I've got osteoporosis, high blood pressure and what else? Oh rather moody, I haven't got much energy. Well I suppose those don't really count, do they? (P8F)*

Should it be the nurse I call?

Experiences of contacting the nurse by telephone revealed the different experiences and importantly the attitudes of participants to this type of service. Some participants had a clear understanding of the role of the nurse and their previous experiences of contacting the nurse had worked well and reinforced the value of contacting the nurse by telephone for any future concerns. These participants were also confident that if the nurse was unable to deal with their problem they would then contact the GP, showing awareness that the nurse could be a positive link with the GP:

*We've probably got an unusual health centre in that you can talk to the nurse to find out whether you need to see the doctor. If there should be something that's suddenly, fairly urgent but you can't see the doctor, then you can talk to the nurse. They have one or two appointments during the day if the nurse decides that you need to be seen you get in. (P2M).*

Trusting that the nurse would follow through on actions and let them know the outcome of these was important and enhanced the sense of trust and confidence in their relationship with the nurse. The feeling of being heard by the nurses and being afforded the time to be heard, was particularly valued by these participants:

*That I can ask a question, I'm taken seriously and if they can't answer me on the spot they will usually take the time when convenient to find out the answer. (P9F)*

However, a few of the other participants spoke about being aware that nurses could provide support, but not feeling that this had worked for them, because they were then referred to the GP anyway. The referral to the GP only reinforced their view that there was not any value in being seen by a nurse. These participants viewed the doctor as the expert and authority on all health matters and did not feel that seeing a nurse would be of any benefit to them:

*No not really because I thought what can she tell me? She can't tell me anything, she's just following orders from the GP. She just said Doctor.....asked me to ring you and that was it. She was very clear about it and said have you got any questions? I thought yes, but you won't be able to answer them, the questions I've got. But you've just gotta play the waiting game. (P13F)*

Can I ring the nurse?

Having systems in place to contact the nurse and knowing these systems were reliable was important to most of the participants. However, there was the impression that the nurses had high workloads and were busy and in some cases participants did not want to appear a nuisance in what they saw as disturbing the nurses' legitimate work. Some participants were

aware that their practices had specific nurses who covered the telephone calls for that particular day and they felt they could use this system:

*We can ring the GP virtually any time, you get the receptionist first of course. You can explain what your problem is, they'll say, well the Nurse is actually talking to someone at the moment but we'll get you the one that's doing the phone calls to ring you. It could be half an hour or something like that, or an hour and they'll ring you back.*

*(P11M)*

However, time was a key factor in the decision making process, as waiting for a call back created some uncertainties as participants wondered if they would get a call back, or when this would occur. In particular, the waiting time for a call back was seen as an inconvenience because of the impact on their lives and everyday routines:

*It can be all times in a day. If I've gone at 7 o'clock in the morning sometimes I get a phone call at 4 o'clock. I can go at 10 o'clock, still get a phone call at 4 o'clock. I can go at both those times and I'll get a phone call at half past 7 at night. It just depends on their workload. (P14M)*

Being able to contact the nurse was not always straightforward, even when practices had dedicated nurse call lines. Whilst the voice message service was used by some, others thought it did not meet their needs or as one participant expressed:

*I want to know something and leaving a voice message doesn't appeal. (P10M)*

Willingness to wait for a call was influenced by how participants viewed the urgency of their situation; if they viewed it as urgent they would not wait for a call back, but use the ambulance service instead. Once again this reflected the complexity of decision making as a participant explained:

*You need to be able to differentiate between waiting for the call back or calling the ambulance straight away. (P3F)*

Being able to access the nurse by telephone rather than attend the practice in person was particularly important to all participants who lived in rural areas:

*We might want to know whether a certain product might interfere with your INR or might have a negative effect on one thing or the other. Rather than make an appointment, if you can do it over the phone from where we are it's an advantage. (P6M)*

The cost of seeing a GP was mentioned by several participants, particularly those with more than one issue to discuss who were aware that they would need more than the usual time for a single consultation. A positive outcome from being able to contact a nurse was that it would reduce the cost of seeing the GP, which for some participants was particularly concerning.

However, the following participant's comment indicates just how cost can have an impact on the decision to get advice and support and lead to missed opportunities for early intervention:

*Recently various questions have arisen about which I would like to know more, but I feel that making an appointment with my GP and the associated cost, \$45(NZ), outweighs the importance of what I want to say. These questions relate not only to*

*myself, but also my husband and his ongoing physical and mental changes which are of course intrinsically linked with mine. (P8F)*

Nurse-directed telephone calls and the opportunity to discuss health issues when the nurse calls

All participants identified that a prime reason for nurses to contact them directly by telephone was to convey the results of blood tests or other investigations. Some felt they could use this opportunity to raise any other concerns they may have. Having a prior relationship with the nurse and trusting them, influenced this decision. However, the older persons perception of the value of the nurses' role, as well as the perceived time the nurse may have available to discuss other matters, were also relevant factors:

*I'm on Warfarin and the nurse rings about once every fortnight with the INR results, but we don't have a conversation. She says here's your result and continue with where you're at because everything's fine and that's about the end to it. (P16F)*

Having conversations with nurses about their feelings and revealing concerns about emotional issues illustrated how the General Practice may not be the appropriate place to either raise or discuss certain issues. Participants reported different perspectives regarding whether they could or would discuss low mood and depression over the telephone. As one explained:



*I've had occasion to talk to a Nurse about a depression sort of thing that was bothering me. They just shot round to the Doctor, I got the help that I needed through that.*

*(P6M).*

Once again expectations of the nursing role and whether participants felt nurses could be approached about non-physical aspects of care was of influence:

*I try to talk myself out of it and look around, but I would never ring a nurse and talk to her. I don't think that's what they're there for. (P15F).*

One of the challenges was working out who they could talk to and approach about certain concerns. It meant that for some participants this only added to the uncertainty of the daily decisions they were making and the following participant shares her thoughts on who she would talk to if concerned about memory loss:

*To be honest I don't know who I'd talk to about that. Perhaps I'd sit outside and talk to myself. Some people might do it. Some people might get desperate and need that.*

*(P10F)*

Scope for further nurse telephone communication

Most participants were positive about the potential for further enhancing nurse telephone services. However, as previously identified, views about this were determined by their differing expectations of the nurses' role and experiences of nurse-patient contact in the GP setting. A few had limited views of what the nurse could offer them and believed that contact with the GP was the only option they would prefer:

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*I can see the trend is coming where they perhaps want you to have more contact with your nurse and deal with them more, in preference to your doctor. I can see that coming in the future, but, I'm probably one of the old school and you prefer to talk to the doctor. (P4M)*

Workload and time constraints for future nurse service development were also identified as problematic, particularly if the nurses were already perceived as busy and having time pressures. The importance of having some initial face to face contact with the nurse prior to establishing the nurse telephone service appeared important for building relationships and trust:

*I'd prefer face to face until I had a relationship with the person that I was comfortable to talk on the phone. If it was someone like phoning from another clinic it's well who is this person and so they're on their guard. If it was the same person each time so there's continuity and getting to know the patient, there needs to be a degree of familiarity, a degree of knowing and trusting and then it will work. (P9F)*

That more skills would be needed by the nurse to enhance the quality of telephone communication was noted, particularly in relation to communicating with older people. As one participant explained:

*I think the nurse needs to know how to communicate with them. Most nurses are very caring, but you can get some that are abrupt and on the short side. (P9F)*

## DISCUSSION

This paper is the first to report on how older people view a telephone service provided by Nurses in Primary Care and how this service can be developed to be more responsive and support older people in the future. This study contributes to the literature on alternative models of service provision in Primary Care. Findings reveal the challenges that older people may face in deciding whether to use a specific service or not. In our study, a key finding was the decision making in relation to seeking advice or treatment as a key process (Figures 1 and 2). This illustrated the challenges facing the older person as they made sense of their multiple symptoms and made decisions and judgements about whether they needed to see a health professional and if in fact this should be the Primary Nurse.

Undoubtedly, as in other studies (Fortin, et al., 2010) some of the GP practices had a culture where the nursing role had been developed to provide nurse-led services that involved the nurse telephoning the patient and also the patient feeling that they could access the nurse by telephone to discuss issues and seek advice and support. Other research using a nurse telephone delivered service has identified positive outcomes. For example, Hunkeler et al reported positive outcomes from mental health focused telephone calls delivered by primary nurses for patients aged 19-90 years diagnosed with a major depressive disorder. In our study, it was evident that older people who contacted the nurse by telephone, or were contacted by the nurse by telephone, had benefitted and felt confident and understood the nurses' role. Certainly, some of the participants had not, or could not, see any benefit or value in being seen by the nurse or having a telephone conversation with the nurse and this appeared to be influenced by their previous experiences and their view of the GP as the expert in their health care. Allen (2015) has noted how nurses' work has had to change to fit the reality of working in today's healthcare systems. Whilst to some extent nurses may have acknowledged this

transformation, the general public may not have aligned with these changes. The perceptions of some of the participants in our study reflect a resistance to being seen by a nurse. These perceptions may also be fuelled by nurses themselves being unsure about their legitimate roles and boundaries in general practice (Jakimowicz, et al., 2017).

Systems were in place in some of the GP practices that made it easier for the older person to make contact by telephone with the nurse, although time factors certainly had an impact on how effective this approach could be. Timeliness of contact was important to the older people in our study and as Jowsey, et al., (2016) noted in relation to informal carers, there is a temporal cost associated with worrying and this certainly fits with the time some of our participants experienced in waiting to be able to speak with the nurse via telephone, but also the time in making a decision to seek advice and support in the first instance. It is recognised that the more long-term conditions an older person has then the more time burden they spend in attempting to manage their health (Jowsey, et al., 2013). Providing more guidance on waiting times for a call back from the nurse or setting a time limit by which the older person should have received a telephone call back would help minimise this uncertainty.

Some participants delayed seeking contact with the GP practice as they considered their symptoms a natural consequence of the ageing process. Research has identified how older people can account for health issues as part of the ageing process and on this basis limit seeking help (Grime, et al., 2010). There is also some evidence of an age-related decline in early recognition and attending to internal physical symptoms (Riegel, et al., 2010). The challenge of course for those older people with multiple morbidity is further complicated, as sometimes symptoms overlap adding to the difficulties of decision making. In particular it is

recognised that certain long-term conditions have a synergistic effect, meaning worsening effects on the persons functioning and increasing symptom burden (Tinetti 2011).

Multimorbidity presents patients with a high treatment burden that results in challenges for patients' self-care and self-efficacy (Hughes, et al., 2012) and some of this was reflected in the older person's decision making. This adds to the uncertainties that older people face and also the limitations that can arise from a system of care that has specific timed consultations that focus on one medical problem or condition. Further research is needed to identify specific high risk conditions where symptoms overlap, e.g. heart failure and depression and determine how these can be highlighted in self-management support for older people. Initiatives to challenge the commonly held view that symptoms are a normal part of ageing could also be tested using a public health nurse initiative on healthy ageing.

We did identify that some participants would not feel it appropriate to raise certain concerns with the nurse over the telephone, or even face to face, for example, emotional state. This fits with previous research identifying that not all GPs or PNs would be comfortable discussing emotional concerns, for example low mood and depression, with older people (Maxwell et al., 2013, Waterworth, et al., 2015). However, it is critical that the practice culture promotes the view that raising emotional concerns is acceptable and one way this could be achieved is making this clear using notices in the practice setting or information in the practice newsletter or website, or even in local newspapers.

Developing the telephone nurse service for the future illustrated that it could be a positive initiative, building on current practices identified in this study and the suggestions provided by our participants of what would be important for the service. Indeed, it seems inefficient to use a trained nurse purely to give telephone results and it is evident that other types of

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service e.g. Patient Portals (Kruse, 2015) are being developed to provide this type of information. Certainly, for most of the participants in our study they received regular telephone calls from nurses about their blood results and this contact could be expanded to identify any current concerns or indeed provide some guidance on wellness and wellbeing, rather than the older person accepting certain symptoms as part of the ageing process. Practices can review their structures and systems to ensure they are making the role of the nurse explicit, in particular what the service entails and what the older person may expect when using the service is required. Having information available using different media in the practice environment such as pamphlets, newsletters, television screening and the practice website or portal would be helpful. These would support the face to face communication that our participants identified as being important when introducing the service and would support the shift in primary care culture.

### Limitations

All participants were able to visit their GP practice and as such they were not dependent on a telephone service. They were able to use the telephone and experienced no issues in relation to hearing and speaking using this medium. Further research is required to explore the perspectives of older people who have difficulties in using a telephone and also those who experience more difficulties in actually accessing GP services to determine how they would see a nurse-telephone service being of use to them. Our participants were identified by the Primary Nurse and we cannot rule out selection bias on their part. However, our sample provides diversity in relation to age, gender and geographical distribution and based on their comments the participants appeared to express their views about their current experiences and provided valuable suggestions for developing an effective nurse-patient telephone service that could better fit their needs.

## CONCLUSION

Increasing the awareness of the Primary Nurse in the GP practice amongst older people and the benefits that can be gained from accessing the nurse by telephone is integral to a health system which will meet the needs of a growing older population. Certainly, GP practices need to ensure that the nurses' scope of practice is made clear and the nursing contribution in supporting older people's health care is clearly evident in the practice. Normalising the discussion of emotional concerns would be an essential component of this.

### Author Contributions:

All authors have agreed on the final version and meet at least one of the following criteria

(recommended by the ICMJE\*):

- 1) substantial contributions to conception and design, acquisition of data, or analysis and interpretation of data;
- 2) drafting the article or revising it critically for important intellectual content.

\* <http://www.icmje.org/recommendations/>

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Code	Gender	Age	Ethnicity	Marital status	LTCs
1	F	90	NZ European	Lives alone	2
2	M	79	English	Married	3
3	F	73	NZ European	Married	9
4	F	75	NZ European	Married	4
5	F	73	Maori	Lives alone	4
6	M	78	Maori	Married	2
7	F	67	NZ European	Married	4
8	F	84	NZ European	Married	2
9	F	78	English	Married	6
10	M	84	NZ European	Married	4
11	M	70	NZ European	Married	3
12	M	68	NZ European	Lives alone	4
13	F	66	English	Married	2
14	M	78	NZ European	Married	4
15	F	83	NZ European	Married	2
16	F	89	NZ European	Lives alone	3
17	M	73	Maori	Married	2
18	F	80	NZ European	Married	8
19	M	76	English	Lives alone	2
20	M	81	English	Married	2
21	M	77	NZ European	Married	3

Table 1. Demographic data and number of long term conditions

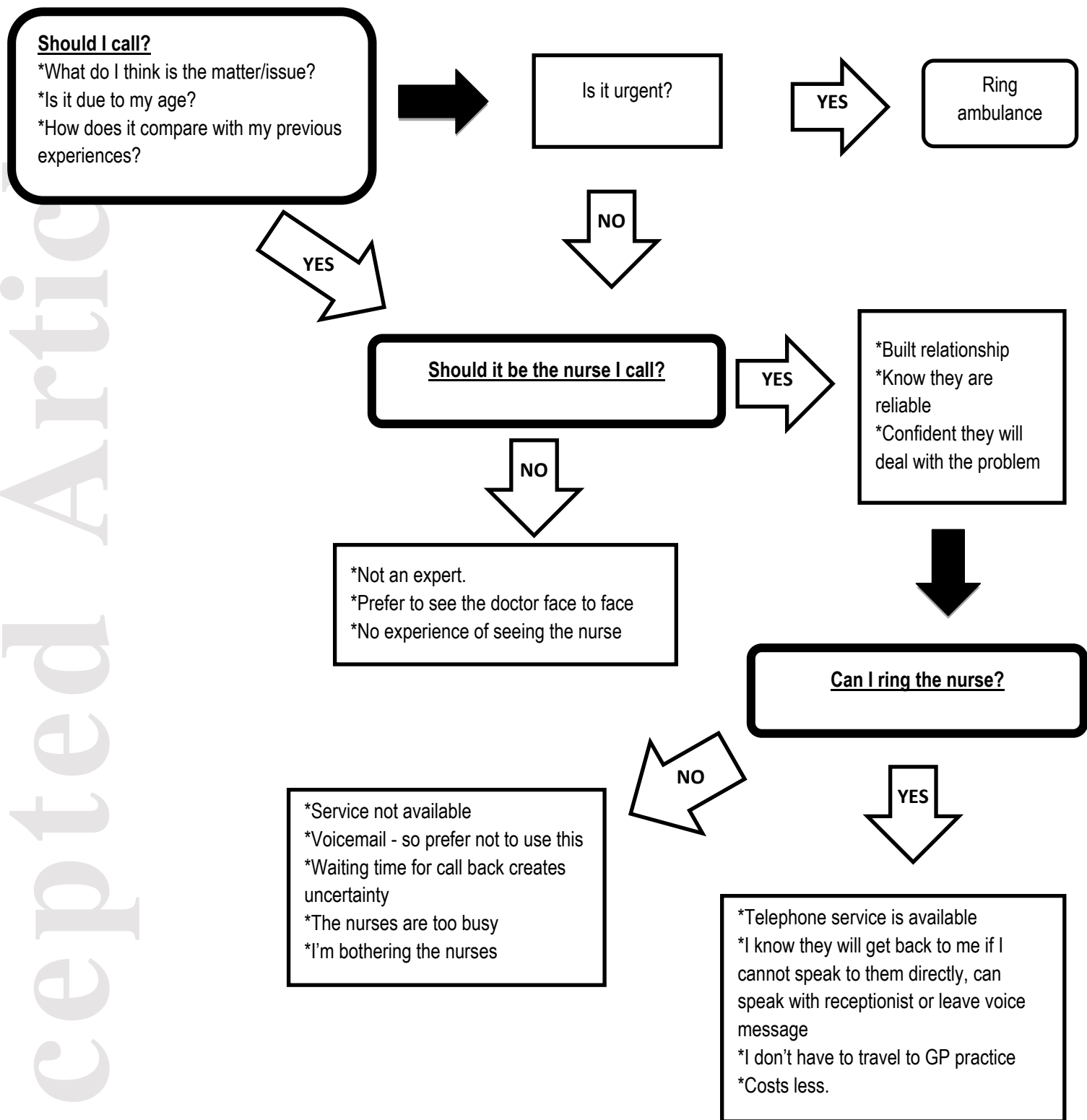


Figure 1. Older person directed telephone consultation – do I need to seek advice from a health professional?

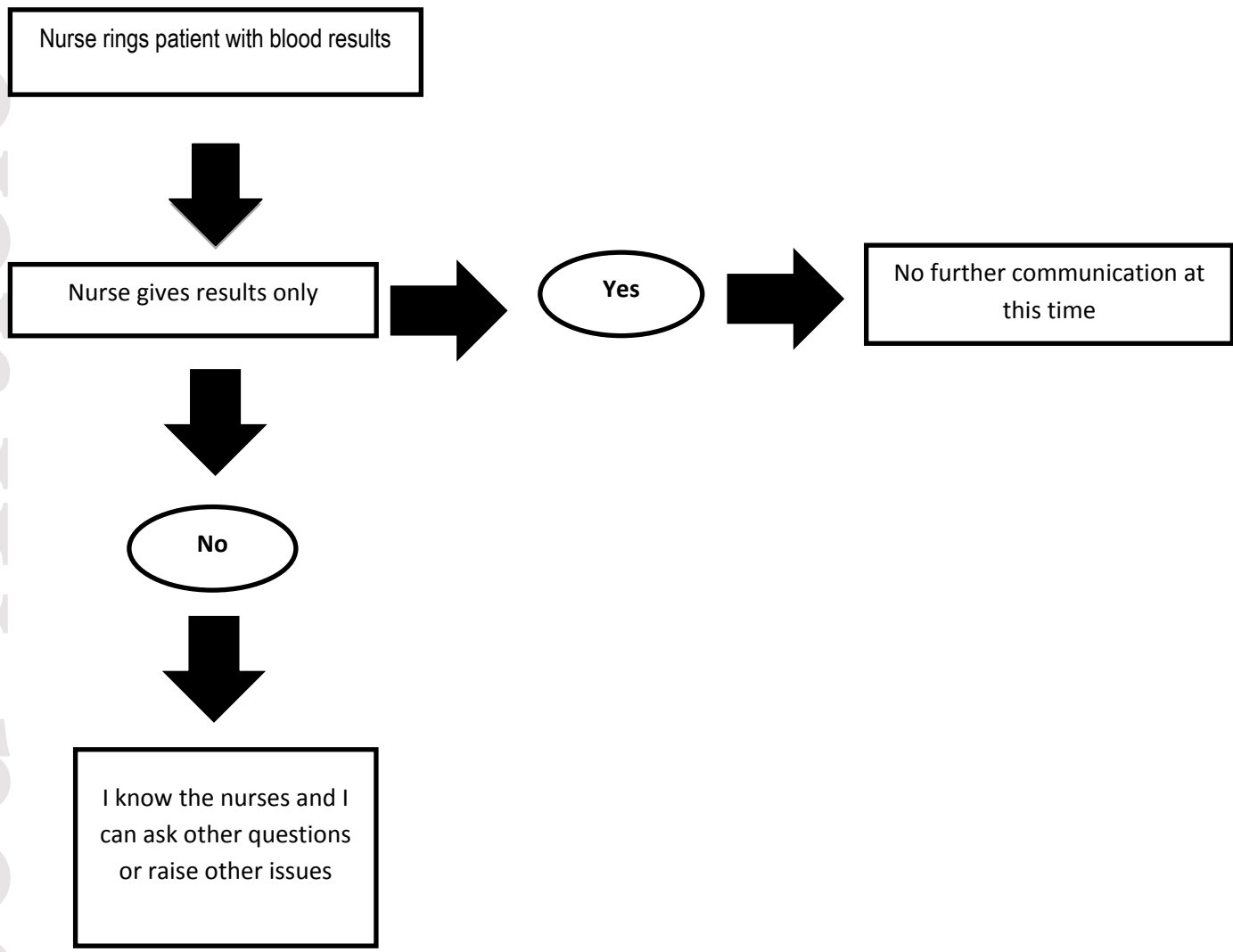


Figure 2. Older person's perception of receiving telephone calls