
Raising awareness of sensory impairment with
nurses working in the community

UNIVERSITY of
STIRLING 



 *Burdett Trust*
for Nursing

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1. Summary

Sensory impairment can affect any age group within the population, however it is identified as one of the most common chronic conditions of later life with undisputable evidence that sensory impairment and associated disability increases with age. The Commission on Improving Dignity in Care have set out recommendations to address the underlying cause of undignified care that includes appropriate assessment for sensory impairment [Recommendation 23] and the provision of accessible care for people with sensory impairments ¹. Significantly the need to ensure that all those working with older people should have the appropriate knowledge and skills has also been highlighted. The purpose of this study was to evaluate the impact of sensory awareness training and elicit the perceptions of sensory impairment from nurses working in five community locality areas across the Western Isles of Scotland. Following workshop participation participants indicated improved knowledge of sensory impairment, a better understanding of associated disability and enhanced knowledge of wider service provision. A number of challenges to specialist sensory services were identified including lack of knowledge of sensory services in the population and patient reticence to access sensory services.

Keywords

Sensory impairment, sensory services, sensory training, community nursing

2. Background

2.1 The impact of sensory impairment

Sensory impairment can affect any age group within the population, however it is identified as one of the most common chronic conditions of later life with unequivocal evidence that sensory impairment and associated disability increases with age ². Hearing loss disorders are projected to be among the top ten causes of burden of disease in high and middle income countries, and age-related vision disorders and cataracts are all projected to move up three or more places in the World Health Organisation disease burden rankings ³. As a result of the ageing population, the number of Scots with sight loss could escalate to 400,000 by 2030 and those with hearing loss set to grow to 1.2 million by 2031 ⁴. Additionally, dual sensory loss or

deaf-blindness, which is concurrent loss of both vision and hearing affects between 5% and 9% of older adults ⁵. Given the strong correlation between sensory impairment, older age, and the demographic structure of the UK, the prevalence of sensory impairment in Scotland is expected to rise ⁶.

Sensory impairment has been associated with cognitive and functional decline. Epidemiology shows that any degree of sensory impairment may have an impact on an individuals' functional ability, and can therefore interfere with their everyday competence and ability to carry out activities of daily living^{1,7,8,9}. Impairment also impacts negatively on a persons' independence by increasing reliance on community/family support and can contribute to risk factors, which pre-dispose to accidental injury or harm. Sensory impairments can therefore pose a threat to older people's sense of dignity, for example through loss of autonomy and independence.

Interventions to prevent or treat the debilitating effects of hearing loss and vision impairment are therefore important to maintain independence and quality of life. In Scotland, policy and practice guidance sets out key outcomes for people with a sensory impairment as well as describing the specific response to sensory need. Importantly, access to information and local services has been recommended by the Scottish Government as one important aspect of service provision to support people¹⁰. The Commission on Improving Dignity in Care have similarly set out recommendations to address the underlying cause of undignified care. Subsequent guidance includes appropriate assessment for sensory impairment [Recommendation 23] and the provision of accessible care for people with sensory impairments¹. Significantly the need to ensure that all those working with older people should have the appropriate knowledge and skills has also been highlighted.

2.2 Sensory services and service awareness

The Scottish Government funded the Western Isles Sensory Centre (WISC) which offers a versatile, multifaceted and convenient approach to providing a range of services for patients with sensory impairments under one roof.

The WISC opened its doors in 2011 and provides advice, assessment, referrals and practical interventions to people with sensory impairments who live in the Western Isles. A recent evaluation of the WISC demonstrates a high level of satisfaction from

people who have accessed the service and also evidence that service intervention positively enhanced many aspects of people's lives¹¹. The evaluation did however identify a lower level of service awareness amongst the general population, and health and social care professionals. Subsequent recommendations included the need to increase the level of awareness of the impact of sensory impairment and sensory service provision with health professionals in the Western Isles.

This project sought to evaluate two of the recommendations which have been made in the WISC evaluation; specifically to raise awareness of sensory impairment in community nurses through training and education and to develop strategies for informing patients and the public about the services available to people with sensory impairments.

3. Aim & Objectives

Aim:

To increase the number of people who access the Western Isles Sensory Service, and other specialist services for visual and /or hearing assessment and support.

Objectives:

1. To evaluate the impact of sensory awareness training and elicit the perceptions of nurses working in the community about sensory impairment and service awareness.
2. To appraise the effectiveness of referral strategies to WISC and other specialist services for people with sensory impairments.
3. To identify any barriers or facilitators experienced by the nurses working in the community when referring people to sensory services.

4. Design and Methods

Table 1 shows the connection between the aims and objectives and the research methods used.

Table 1: Aims, objectives, methods

Aim: To increase the number of people who access the Western Isles Sensory Service and other specialist services for visual and hearing assessment and support	
Objectives	Methods
1. To evaluate the impact of sensory awareness training and elicit the perceptions of nurses working in the community about sensory impairment and service awareness	<ul style="list-style-type: none"> • Deliver 5 training workshops for nurses working in the community settings in the Western Isles: Lewis and Harris x3 Uist and Barra x 2 • Pre and post training evaluations of sensory awareness training • Postal Survey of nurses 4 months post workshop • Focus group interview with community nurses
2. To appraise the effectiveness of referral strategies to WISC and other specialist services for people with sensory impairments.	<ul style="list-style-type: none"> • Audit of WISC referrals and other sensory services from community nursing • Focus group interview with community nurses
3. To identify any barriers or facilitators experienced by nurses working in the community when referring people to sensory services.	<ul style="list-style-type: none"> • Postal Survey of nurses 4 months post workshop • Focus group interview with community nurses

4.1 Training workshops

Sensory training workshops were held with community staff in five community localities in the Western Isles in February and March 2014. Workshops were facilitated by staff from sensory services that have expertise supporting people with sensory impairment and experience of training (GM; JG). The workshops were highly participative and simulation scenarios gave participants the opportunity to experience at first hand examples of visual and hearing sensory impairments and the impact on activities of living. Key elements of the workshops included:

- Review of main causes of visual and hearing impairment
- Overview of impact of sensory impairment on the individual and their carers

- Overview of services available for people with sensory impairment including the Western Isles Sensory Centre
- Overview of referral process to sensory services
- Sensory impairment simulation exercises

4.2 Workshop evaluations

Community nursing staff who attended sensory awareness training completed pre and post training evaluations, immediately before and after the training. The evaluation asked participants to rate their level of knowledge on three specific areas; hearing impairment, visual impairment and referral mechanisms on a 5 point scale from 1 (low) to 5 (high). (Appendix 1 and 2)

4.3 Survey of workshop participants

A postal survey was sent to all workshop participants 4 months after they attended the workshops to gain their views of the longer term impact of sensory training on their practice. (Appendix 3)

4.4 Focus group interviews with community nurses

A focus group interview was conducted with a sample of nurses who attended the workshops representing three of the community teams in the Western Isles. The interview helped to elicit the longer term impact of workshop participation and perceptions of referral processes, including appraisal of barriers or facilitators. The interview was recorded and transcribed verbatim. (Appendix 4)

4.5 Data Analysis

The evaluation data collected was analysed initially in a descriptive manner and is shown in table 2 and graphically for each response in appendix 5. The table shows the number and percentage of respondents to each question on the 5 point likert scale at two time points, pre and post workshop. We used the Chi-squared test for independence to look for statistical differences in the observed frequencies of answers given pre and post workshop. As the number of responses in some categories were too small, data were grouped into 3 categories: (1) low and low-medium, (2) medium and (3) medium-high and high.

Responses to closed questions from the postal survey were analysed using descriptive statistics and compared with pre and post evaluation data. Responses to the open questions were analysed by two of the researchers (AS, KM) using a framework approach, responses were coded, distilled and organised as evidence related to the *a priori* objectives.

The focus group transcript was analysed using a framework approach to explore the key research aims.

4.6 Population and sample

All nurses who work in the community settings in NHS Western Isles were invited to participate in the workshops and in the research. Representation was sought from each of the five locality teams in the Western Isles to obtain geographical representation of the community nursing teams. If nurses chose not to participate in the research they were still be able to attend the workshops.

5. Ethical Considerations

The study was approved by the Ethics Committee, School of Nursing, Midwifery and Health, University of Stirling. Information sheets about the study were distributed to all potential participants (Appendix 6), consent forms were completed by all the participants who took part in the study (Appendix 7).

Table 2 Evaluation Data

	Low 1		2		Medium 3		4		High 5	
	Pre N (%)	Post N (%)								
Section 1: Hearing Impairment										
Q1: Knowledge of impairments	8 (24.2)	0	11 (33.3)	1 (3.2)	13 (39.4)	11 (35.5)	0	19 (61.3)	1 (3.0)	0
Q2: Knowledge of impact of impairments	1 (3.0)	0	10 (30.3)	0	13 (39.4)	7 (22.6)	6 (18.2)	16 (51.6)	3 (9.1)	8 (25.8)
Q3: Understanding of the Safety risks	3 (9.1)	0	10 (30.3)	2 (6.5)	13 (39.4)	5 (16.1)	3 (9.1)	17 (54.8)	4 (12.2)	7 (22.6)
Q4: Knowledge of strategies to effectively communicate	5 (15.2)	0	12 (36.4)	0	13 (39.4)	9 (29.0)	1 (3.0)	17 (54.8)	2 (6.1)	5 (16.1)
Q5: Confidence to support patients with impairment	14 (42.4)	0	15 (45.5)	3 (9.7)	2 (6.1)	16 (51.6)	0	12 (38.7)	2 (6.1)	0
Q6: Confidence to provide a detailed account of hearing requirements in patients care plan	12 (36.4)	0	17 (51.5)	1 (3.2)	2 (6.1)	16 (51.6)	1 (3.0)	14 (45.2)	1 (3.0)	0
Section 2: Sight Impairment										
Q1: Knowledge of impairments	5 (17.2)	0	13 (44.8)	1 (3.4)	10 (34.5)	7 (24.1)	0	20 (69.0)	1 (3.4)	1 (3.4)
Q2: Knowledge of impact of impairments	0	0	12 (41.4)	0	9 (31.0)	7 (24.1)	5 (17.2)	14 (48.3)	3 (10.3)	8 (27.6)
Q3: Understanding of the Safety risks	4 (13.8)	0	9 (31.0)	1 (3.4)	9 (31.0)	5 (17.2)	5 (17.2)	15 (51.7)	2 (6.9)	8 (27.6)
Q4: Knowledge of strategies to effectively communicate	6 (20.7)	0	10 (34.5)	0	10 (34.5)	12 (41.4)	2 (6.9)	14 (48.3)	1 (3.4)	3 (10.3)
Q5: Confidence to support patients with impairment	11 (37.9)	0	13 (44.8)	2 (6.9)	3 (10.3)	17 (58.6)	1 (3.4)	9 (31.0)	1 (3.4)	1 (3.4)

Q6: Confidence to provide a detailed account of sight requirements in patients care plan	11 (37.9)	0	13 (44.8)	2 (6.9)	3 (10.3)	15 (51.7)	1 (3.4)	11 (37.9)	1 (3.4)	1 (3.4)
Section 3: Referral										
Q1: Awareness of service provision for people with a hearing impairment	7 (21.2)	0	16 (48.5)	0	8 (24.2)	5 (16.1)	0	21 (67.7)	2 (6.1)	5 (16.1)
Q2: Awareness of service provision for people with a sight impairment	7 (21.2)	0	17 (51.5)	0	8 (24.2)	5 (16.7)	0	17 (56.7)	1 (3.0)	8 (26.7)
Q3: Knowledge of referral process for people with a hearing impairment	7 (21.2)	0	17 (51.5)	1 (3.2)	8 (24.2)	10 (32.3)	0	13 (41.9)	1 (3.0)	7 (22.6)
Q4: Knowledge of referral process for people with a sight impairment	10 (30.3)	0	15 (45.5)	0	7 (21.2)	8 (26.7)	0	16 (53.3)	1 (3.0)	6 (20.0)
Q5: Likelihood that you would automatically refer patients to NHS sensory services	7 (21.9)	0	14 (43.8)	0	4 (12.5)	6 (19.4)	2 (6.2)	17 (54.8)	5 (15.6)	8 (25.8)
Q6: Likelihood that you would automatically inform patients/carers about the WISC	7 (21.2)	0	15 (45.5)	0	5 (15.2)	6 (19.4)	2 (6.1)	12 (38.7)	4 (12.1)	13 (41.9)

6. Results and interpretation of findings

6.1 Sensory Workshops

Attendance at the five workshops, including designation is detailed in Table 2. In total 36 participants took part in the workshops. The majority of participants were nurses who worked in the community, some of which were also student mentors whose students also participated.

Table 3 Workshop attendees

Locality	Participant numbers	Registered Nurse	Student Nurse	Health care Assistant	Medical Student	Social care Assessor
1	9	7		1	1	
2	8	5	2	1		
3	10	6	1	3		
4	3	2				1
5	6	4	1	1		

6.2 Postal Surveys

In total, 36 postal surveys were sent to all participants who attended the workshops, 19 surveys were returned, with an overall response rate of 53%.

6.2.1 Knowledge of and attitudes to sensory impairment

When asked about their knowledge of hearing impairments pre-course, only 1.6% of participants rated this as medium-high or high. This rose to 29.7% post-course. Similar findings were noted for knowledge of visual impairments which rose from 1.7% pre-course to 36.2% post-course. The knowledge of the potential impact of both hearing and visual impairments on individuals daily lives also increased rising from 14.1% pre-course to 37.5% post-course for hearing and 13.8% to 37.9% for visual. These changes were all statistically significant ($P < 0.05$).

All respondents to the survey indicated that they had increased their knowledge of sensory impairments. Benefits of workshop attendance included; enhanced knowledge about the spectrum of sensory impairments, where to access information, improved awareness of aids and equipment, and increased confidence and competence to advise patients and carers,

The practical sessions were very informative and greatly improved the level of service I now provide to sensory impaired patients.

Some respondents described how their experience of workshop attendance enhanced their understanding of the experience of living with a sensory impairment and consequently influenced their practice,

I am more sensitive to their needs and will put more input into helping to improve their activities of daily living by advising them and their relatives.

Especially patients with visual difficulties and exercises with glasses helped me to understand full impact on patients.

The sensory training session was extremely valuable in relation to improving our interactions with sensory impaired patients.

The value of disseminating information to colleagues who had not attended the workshops was noted by three respondents,

I feel I can now advise appropriately and will be advising student nurses and new staff members of the importance of addressing sensory impairment in nursing assessments.

I have had a discussion with social care workers and highlighted the awareness of these impairments when dealing with clients and for them to relay any concerns.

6.2.2 Patient assessment

It is interesting to note that very few participants pre-course felt confident to assess patients with either a hearing or visual impairment (3.1% and 3.4% respectively). Although there was an increase in confidence after the course, these figures were still low (18.8% and 17.2% respectively).

The majority of respondents (N=18) indicated that attendance at the workshops had influenced their patient assessments. Enhanced knowledge of visual and hearing disorders and the impact that impairment had on the daily living activities of individual patients featured significantly in responses,

I am now able to identify sensory impairment more effectively

I am more aware and observant of barriers

Enhanced knowledge also influenced respondents' attitudes towards people with impairments and both empathy and compassion were identified in responses,

Have even more empathy and understanding for patients who have sensory needs

Increased awareness, heightened compassion / sensitivity

Examples were provided of ways in which respondents had changed their practice as a result of enhanced knowledge, this included obtaining more detailed information about the nature of patients' impairment, strategies for support and use of aids,

I am more likely to spend more time discussing with patient what the problem is and what we can do to help

I now ask direct questions regarding their sight and /or hearing as I feel I now know where to refer them to or what to offer regarding these problems.

I inquire about hearing aids

The majority of respondents (N=17) indicated that documentation of patients' sensory impairment, communication strategies, use of aids, and subsequent needs had improved.

The respondent who indicated that practice had remained unchanged had not come across a patient with sensory impairment since attending the workshop.

6.2.3 Referral to Sensory services

The likelihood that participants pre-course would refer patients with either a hearing or visual impairment for more specialist care was low with only 11.1% stating there was a medium-high or high chance of this happening. This rose to 39.7% after the course. Automatic referral to the WISC also rose from 9.4% pre-course to 39.1% post-course. A Chi-squared test of independence indicated that both changes from pre to post-course were statistically significant ($p < 0.005$).

Respondents were asked if they had informed / or referred patients to sensory services post workshop. While 12 respondents indicated that they had informed patients about services, 7 respondents had not. Reasons for not informing of sensory services included the need not having arisen ($n=4$) however respondents indicated that they would inform future patients when the need arose; some patients

had previously accessed services and assistive equipment and one of the student respondents did not see this as a students' responsibility. Conversely, another student responded '*felt confident enough to advise patients and carers with information*'. One respondent indicated that most patients were older and housebound and favoured General Practitioner or optician appointment over other services.

The majority of respondents had taken the opportunity to inform patients about the Sensory Centre and the audiology service,

Relayed information to a housebound patient, with senile macular degeneration and her daughter, discussed the sensory services with them.

A small number of the respondents (n=3) who had passed on information about services were able to identify the impact of the information on patients and carers,

Patient and daughter attended the local drop in clinic and accessed aids to help assist in daily living.

Some have had their hearing aids renewed. Some have sought advice for other ailments and for aids to help them.

6.3 Focus Group

The focus group of 7 participants took place approximately 12 weeks post workshop and lasted approximately 45 minutes. Five key themes emerged from the focus group that describes how participants perceived sensory impairment and its impact.

6.3.1 Impact of sensory impairment

Participants described the impact of sensory impairment on patients and in doing so made reference to both the physical limitations and psychosocial implications of visual and/or hearing loss. Situations were described where patient's confidence and independence were compromised. Difficulties in carrying out tasks like managing medications were noted. Most significant was the impact of social isolation, which participants suggested was manifested in a number of ways. Loss of a driving license was described as '*disheartening*', vision loss that affected patients who could no longer read was perceived as '*isolating*' and made patients "*sad - that she can no long read*".

“If people have impairment they can’t drive, can’t make phone calls because they can’t hear, it means that they have to ask someone else and that’s the problem because they have lost their independence and they don’t want to be more dependent by asking people to make arrangements for them”.

Hearing loss was noted to affect patient’s ability to interact in groups and background noise affected compromised patients who wore hearing aids. Participants note that patients become even more isolated as friends and family members struggled to overcome communication difficulties,

“People find it difficult to be with her and not quite knowing what to do.”

6.3.2 Empathy

Participants described how workshop participation provided them with a more empathetic understanding of the impact of sensory impairment,

“Made us strongly aware of how diminished people’s lives are when these senses are taken away for them”

“Yes, that is what the training really did – gave us? empathy, whereas before we did not always understand the problems and frustrations they were actually facing”

“We sympathised but didn’t really have empathy”

6.3.3 Service access and use

Some participants had passed on information about the WISC to patients and carers or had directly referred patients to the service. Examples were provided where participants had changed their practice, and specifically, more detailed assessment of sensory functions, more confident to have discussion with patients about their impairment and more likely to inform about sensory services,

“Yes, now much more likely to inform. It’s useful knowing they will do a home visit because often people who are severely disabled by problems are often older and can’t easily travel”

It is notable that two issues were highlighted in relation to service use. First, the key role of social carers in identifying problems with patients. Participants noted that social carers were key informants about patients and described how carers highlight

problems, including sensory impairments and relate these to the nurse. The need to support carers with sensory training was highlighted.

Second, participants noted that patients themselves were at times reticent to access sensory services even when informed about the help and support that is available.

“Some people are reluctant but mostly positive reactions”

“Older ones a little reticent at first, they don’t want to put anyone at any trouble, [...] they will ‘oh well if it will help I will give it a try”

“Some people have been like that for so long, their impairment is what they know – and they can be resistant to change”

6.3.4 Improving practice

Participants made a range of suggestions for further improving care to support people with sensory impairment and for raising awareness of service provision. Training and information for home carers and for home care assessors was highlighted. Participants identified a range of actions they volunteered to take forward beyond the lifetime of the project to continue to raise awareness of sensory impairment and services, these included:

- Contact with local radio
- Contact with talking local papers
- Provide information for local community papers
- Sharing information with others nurses who had not participated in the project
- Contact GP practice managers / leaflets
- Continue to raise WISC profile with patients and carers and encourage patients to self-refer to WISC
- Provide information leaflets and contact information for patients and carers

7. Discussion

There was a significant improvement in participant’s knowledge post workshop, of both sensory impairments and associated disability. It is noteworthy that pre-workshop awareness levels of the incidence of sensory impairment was low and this may be significant as it probable that the majority of patients cared for in the community are older and are therefore more likely to experience a sensory

impairment. It may be that previous education of sensory impairment had been insufficient or had not been reinforced for some time. The requirement for a skilled, sustainable, well-trained and supported workforce across all levels and agencies is emphasised in current Scottish policy¹⁰.

Post workshop there was some increase in participant's confidence levels to carry out a sensory impairment, although overall confidence levels with assessment remained low. However participants did indicate that they were more likely to discuss sensory impairments with their patients and to document aspects of this assessment in patient's notes. It is important to highlight that education for specialised sensory assessment were not part of the workshop aims and that visual and hearing impairment require expert assessment. The development of integrated service provision that actively promotes opportunities for assessment and service delivery across the different types of sensory loss and across agencies involved is recommended as a key factor to support the development of care pathways¹⁰. Information about services such as audiology and the WISC were reinforced at the workshops. A small number of participants had informed patients about services available and others indicated they would do so in future.

Participants indicated that they better understood the impact of sensory impairment on individuals and were subsequently more empathetic about the challenges faced by people with sensory impairment. Both the psychological and social impacts of impairments were highlighted and the negative consequences of isolation that can emerge if or when impairment progresses. Empathy with the disabling aspects of sensory impairment was derived from experience recounted with patients and also as an outcome of this project, through workshop participation. It is notable that the participative aspects of the workshops evaluated particularly well, for example participants attempted to carry out various daily living activities while wearing glasses that distorted vision.

Analysis of data reveals two important issues in relation to support of people with sensory impairment. First, the multi-disciplinary / multi agency nature of care provision in the community was emphasised and particularly the key role of social carers. Personal care services are provided by local authorities or delivered through

integrated care services by formal carers who care for clients on a regular basis and who know their clients well. Carers were identified by participants as key informants about their clients' needs and the need for sensory training to be more widely available was noted. A partnership approach and the active engagement of a wide range of statutory and third sector agencies in the health, education and social care sectors is a central to the 'See Hear' strategic framework¹⁰. Second, participants suggested that some patients may be reluctant to seek advice about their impairment because they have become resigned to their condition.

Finally, focus group participants suggested a number of initiatives that could be taken forward to increase awareness of sensory impairment in the community and raise awareness of the local services available, including the WISC. This finding has been supported by previous work that has highlighted the need to raise awareness of service provision¹¹.

8. Limitations

There were a number challenges encountered throughout implementation of the project. Because the training was organised around the five locality teams in the Western Isles, it was understandably difficult for all community nurses from each team to attend the training on the specified days. Although care was taken to plan workshop dates and times to maximise attendance, all nurses were not able to attend. Additionally, training took place throughout the Western Isles and travel challenges due to inclement weather and availability of trainers and participants particularly impacted on workshop planning and subsequently affected attendance, particularly in the Southern Isles. While the research team considered the use of video-conferencing to deliver training, this was rejected as the workshops were mainly interactive and there was a desire to provide an equitable workshop experience for all participants. Overall, despite the organisational challenges identified earlier, participants from each of the five locality teams were represented in the project.

The WISC reported increased awareness of new clients accessing the service following information and advice received from community nurses; however it was

not possible to obtain precise numbers of referrals from WISC to fully support this claim.

9. Conclusion

The project aims for the study were met with the exception of audit of WISC referrals from community nursing services. At the time the project was undertaken there were no formal referral strategies in place from community nursing services; however WISC had noted an increase in clients who have been informed about the service by the community nursing service.

The project helps to demonstrate the importance of raising awareness of sensory impairment and related education; findings from this project clearly articulate with recommendations from the recently launched strategic framework for meeting the needs of people with a sensory impairment in Scotland¹⁰. Community nurses are often well placed to identify disabilities as a result of sensory impairment and patients at risk of injury. Knowledge of specialist services available will increase the opportunities for referral to these services and impact positively on the lives of older people. Importantly, health, social and third sector agencies working together through local partnerships can more effectively support the care of older people with sensory impairments.

10. Recommendations

- Education about sensory impairment should be provided to all health and social care professionals who deliver direct care to older people across all care settings
- Through local partnerships, community nurses are in a key position to support members of the health and social care team to raise awareness of service provision and referral pathways
- There should be accessible information about local sensory services provision available and how to access services

11. Impacts of the Project

The project has helped to raise awareness of sight and hearing impairment with community nurses and other healthcare professionals working in community settings. There is increased awareness of both the prevalence of sensory impairment and the disabling impact on people's lives. Importantly community nurses have access to information that informs them, their patients and carers of services available to support people with impairments. This outcome reflects current policy recommendations^{1, 10}.

The involvement of a community nurse as part of the research team has been crucial to the progress of the project. Importantly, the involvement has spanned the entire project including initial preparation of the proposal, development of the research tools, ethics submission, development, delivery and evaluation of workshops, focus group interviewing, analysis and final project write-up. This has provided insight into the research journey and has made the idea of research more accessible and, with this project more applicable to patient care. Further experience will be gained through conference and publication dissemination.

As a direct result of project involvement one the investigators (AS) has collaborated in the development of a grant proposal: *T Kroll T, Watson M, Smith A, Stoddart K, Macadden L* **Sensory impaired persons access to pharmacological care services** CSO £250,000 TBC Dec 2014

12. Dissemination Plan

- Conference dissemination (QNIS)
- Project report will be freely available through University of Stirling STORRE repository
- Publication of article in British Journal of Community Nursing

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APPENDIX 1 Pre workshop evaluation V1 24.9.13

Sensory training: Pre Workshop evaluation

Please work through the evaluation, which should not take you more than 10 minutes to complete. The purpose of this evaluation is to gain an understanding of your awareness of sensory impairment prior to attendance at sensory training workshops. All feedback from the evaluation will remain anonymous.

Instructions: Please rate the items below.

Section 1: Hearing Impairment

Table with 6 rows and 6 columns. Columns: How would you rate the following:, Low (1), 2, Medium (3), 4, High (5). Rows: Knowledge of common hearing impairments, Knowledge of the impact a hearing impairment has on the individual, Understanding of the safety risks associated with a hearing impairment, Knowledge of strategies to effectively communicate with a person with a hearing impairment, Confidence to assess patients with a hearing impairment, Confidence to provide a detailed account of hearing requirements in patient care plans.

Section 2: Sight Impairment

Table with 4 rows and 6 columns. Columns: How would you rate the following:, Low (1), 2, Medium (3), 4, High (5). Rows: Knowledge of common sight impairments, Knowledge of the impact that a sight impairment has on the individual, Understanding of the safety risks associated with a sight impairment.

Knowledge of strategies to effectively communicate with a person with a sight impairment					
Confidence to assess patients with a sight impairment					
Confidence to provide a detailed account of sight requirements in patients care plans					

Section 3: Referral

How would you rate the following:	Low		Medium		High
	1	2	3	4	5
Awareness of service provision for people with a hearing impairment					
Awareness of service provision for people with a sight impairment					
Knowledge of referral processes for people with a hearing impairment					
Knowledge of referral processes for people with a sight impairment					
Likelihood that you would automatically refer patients to NHS sensory services					
Likelihood that you would automatically inform patients / carers about Western Isles Sensory Centre					

Please provide any additional comments in the space below.

Can you please provide the following information?

Current Post _____

Locality _____

Thank-you for completing the evaluation



APPENDIX 2 Post Workshop evaluation V1 24.9.13

APPENDIX 2 Sensory Training: Post Workshop evaluation

Please work through the evaluation, which should not take you more than 10 minutes to complete. The purpose of this evaluation is to gain an understanding of your perception of the sensory training workshops you attended. All feedback from the evaluation will remain anonymous.

Instructions: with reference to the training you attended today, please rate the items below about the training you have received.

Section 1: Hearing Impairment

How would you rate the following:	Low		Medium		High
	1	2	3	4	5
Knowledge of common hearing impairments					
Knowledge of the impact a hearing impairment has on the individual					
Understanding of the safety risks associated with a hearing impairment					
Knowledge of strategies to more effectively communicate with a person with a hearing impairment					
Confidence to assess patients with a hearing impairment					
Confidence to provide a more detailed account of hearing requirements in patient care plans					

Section 2: Sight Impairment

How would you rate the following:	Low		Medium		High
	1	2	3	4	5
Knowledge of common visual impairments					

Knowledge of the impact that a visual impairment has on the individual					
Understanding of the safety risks associated with a visual impairment					
Knowledge of strategies to more effectively communicate with a person with a visual impairment					
Confidence to assess patients with a visual impairment					
Confidence to provide a more detailed account of vision requirements in patients care plans					

Section 3: Referral

How would you rate the following:	Low		Medium		High
	1	2	3	4	5
Awareness of service provision for people with a hearing impairment					
Awareness of service provision for people with a visual impairment					
Knowledge of referral processes for people with a hearing impairment					
Knowledge of referral processes for people with a visual impairment					
Likelihood that you would automatically refer patients to NHS sensory services					
Likelihood that you would automatically inform patients / carers about Western Isles Sensory Centre					

Please provide one example of how you may change your practice as a result of this training (if any).

Please provide any additional comments in the box below

Can you please provide the following information?

Current Post _____

Locality _____

Thank-you for completing the evaluation

In no, can you say why not?

4. Are you aware of any impact that sensory referral has had on your patients ability to communicate/ carry our activities of living?
Yes No

If yes, can you elaborate?

In no, can you say why not?

5. Do you feel that the sensory training workshop has enhanced your level of knowledge and skills to advise patients / carers with sensory information?

Yes No

If yes, can you elaborate?

In no, can you say why not?

Is there any more information you wish to add?

Can you please provide the following information?

Current Post _____

Locality _____

Have you had previous training / education specifically related to sensory impairment?

Thank-you for taking the time to complete the Questionnaire

Please return your completed questionnaires in the stamped address envelop provided

If you require further information, please contact: Dr Annetta Smith, Senior Lecturer, School of Nursing, Midwifery and Health, University of Stirling, western Isles Campus, Western Isles Hospital, Stornoway, Isle of Lewis, HS20DR Annetta.smith@stir.ac.uk or Karen Macleod karenmacleod2@nhs.net



Appendix 4 Focus Group protocol V1 24.9.13

Raising awareness of sensory impairment with nurses working in the community

At the beginning of the meeting participants will be reminded that they can withdraw from the focus group or the research project at any time without giving a reason. In addition, the participants will be encouraged to define and agree to abide by a set of ground rules for the focus group; this will include issues related to group etiquette and use of the 2 way video-conference system, and confidentiality.

At the beginning of the focus group participants will be reminded that the purpose of the discussion is to:

1. Evaluate the impact of sensory awareness training and elicit the perceptions of nurses working in the community about sensory impairment and service awareness.
2. Appraise the effectiveness of referral strategies to WISC and other specialist services for people with sensory impairments.
3. Identify any barriers or facilitators experienced by nurses working in the community when referring people to sensory services.

The researcher will facilitate the focus group and encourage participants to:

- engage in critical reflection about their knowledge of sensory impairment and the impact that this can have on the health and wellbeing of patients and their families and whether the training workshops have influenced their knowledge and practice in any way.
- consider issues which enhance or detract from referral strategies as well as health seeking support by patients
- discuss and generate change interventions that can be carried forward and utilised to further enhance awareness of sensory services

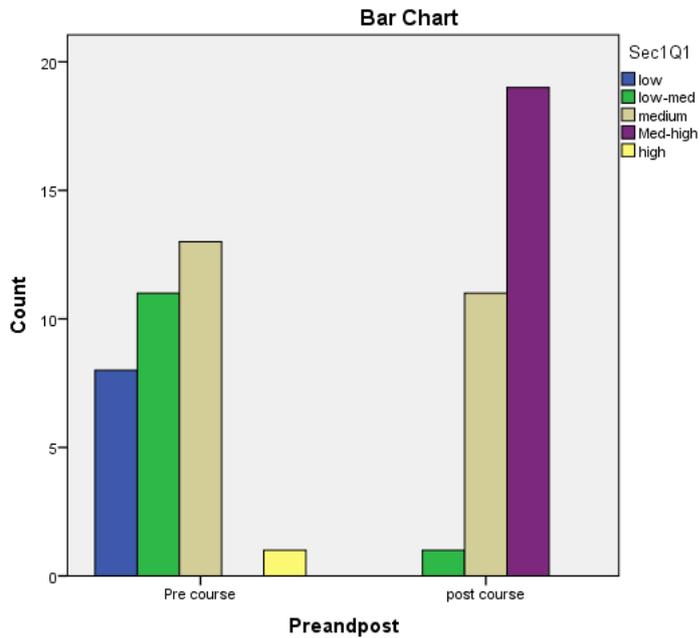
The researcher will use open ended questions, reflection, clarification, paraphrasing to engage in discussion about the evidence presented. By exploring their own knowledge and experience the group will be encouraged to discuss the key areas identified for the focus group discussion.

At the close of meeting the researcher will:

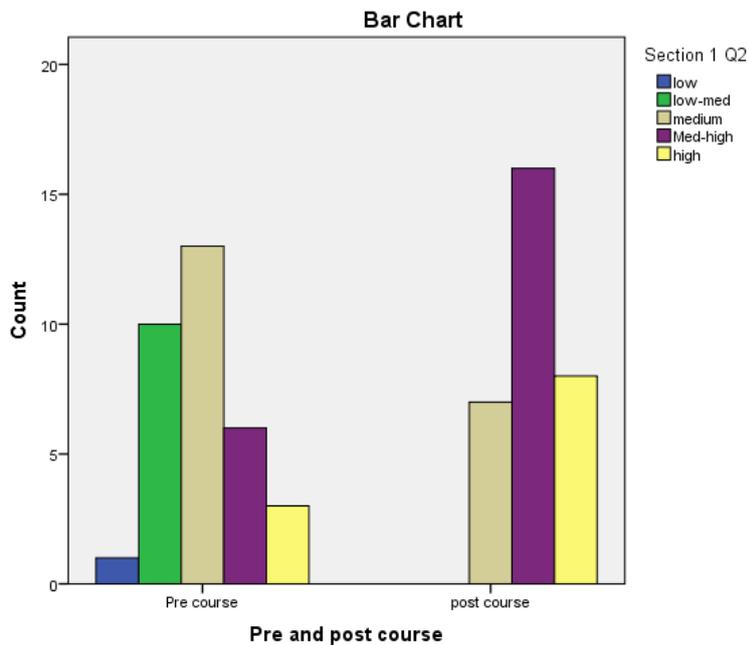
- Thank the professionals for their attendance and participation at the focus group
- Remind the participants that they can request a copy of the final project report.

Appendix 5 – Pre and post responses to all questions

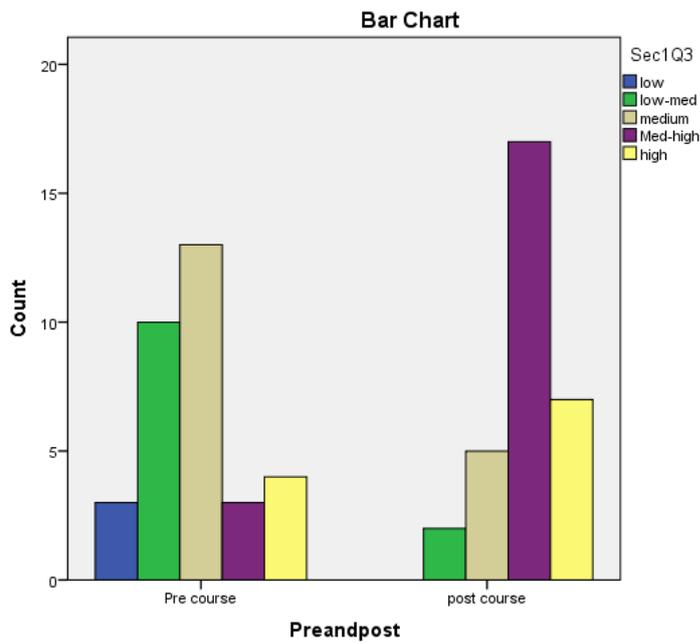
Section 1, Q 1: How would you rate the following – Knowledge of common hearing impairments



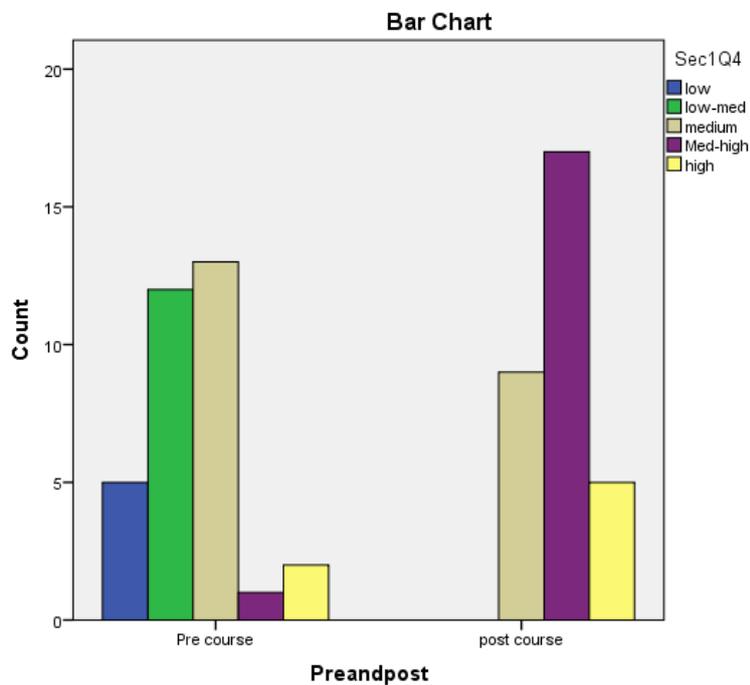
Section 1, Q 2: How would you rate the following – Knowledge of the impact a hearing impairment has on the individual



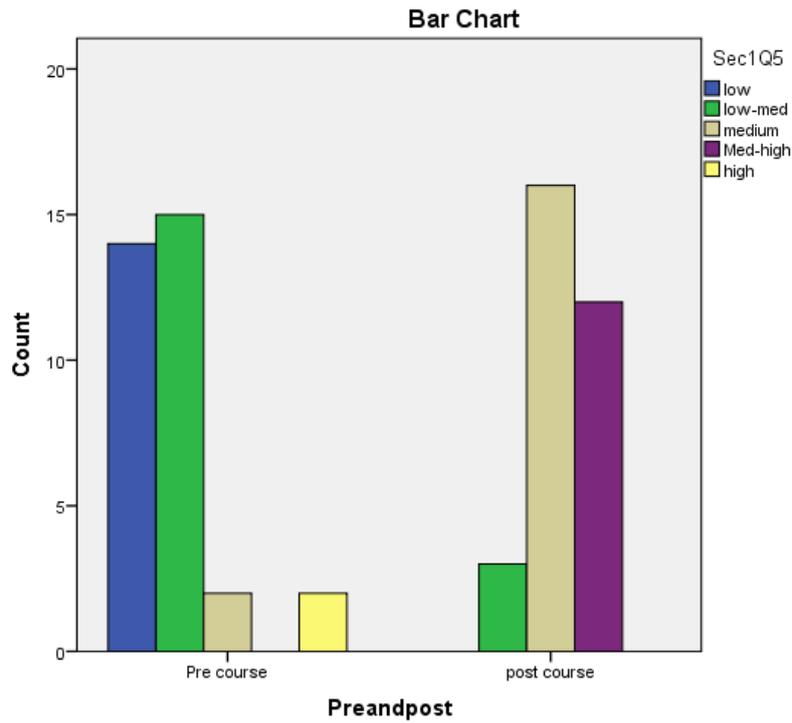
Section 1, Q 3: How would you rate the following – Understanding of the safety risks associated with a hearing impairment



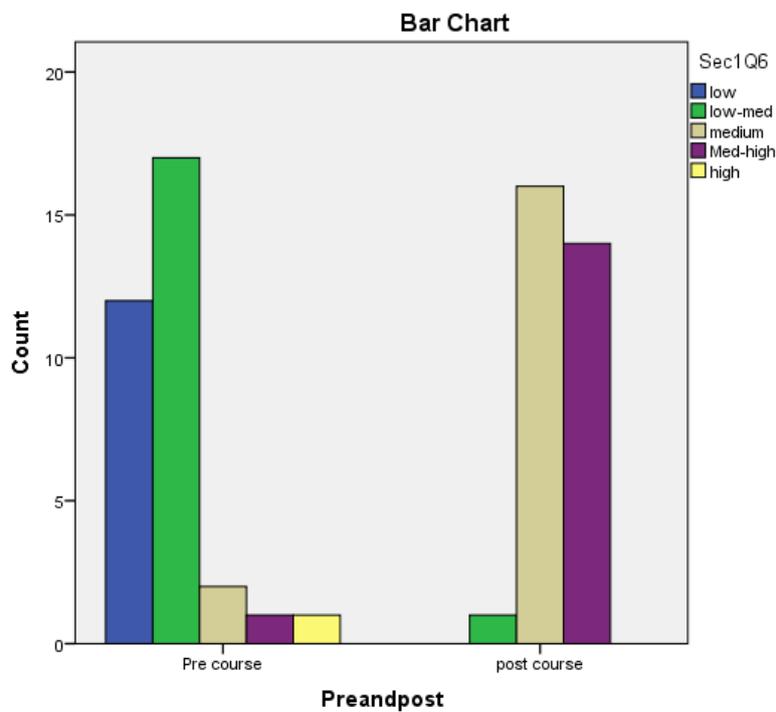
Section 1, Q 4: How would you rate the following – Knowledge of strategies to effectively communicate with a person with a hearing impairment



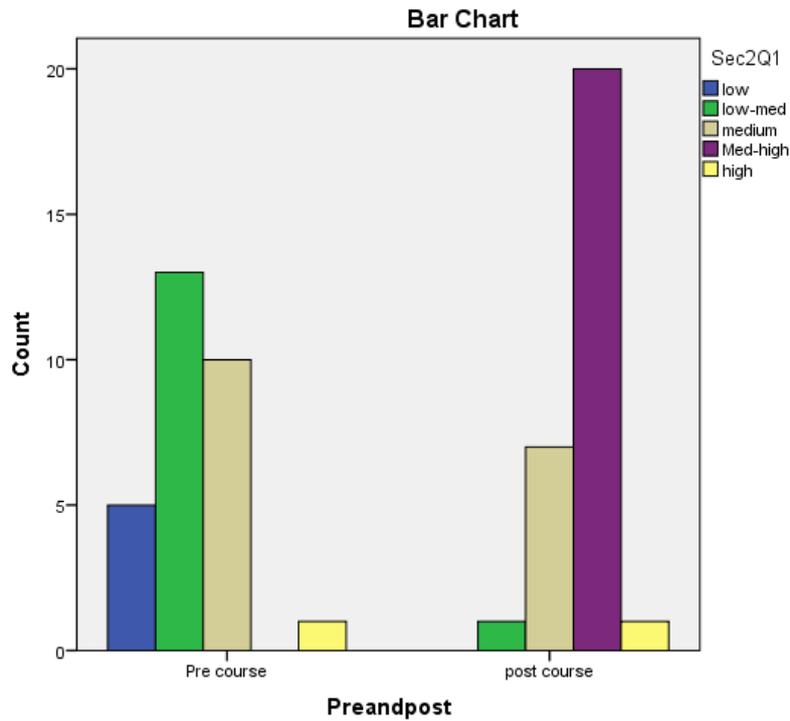
Section 1, Q 5: How would you rate the following – Confidence to assess patients with a hearing impairment



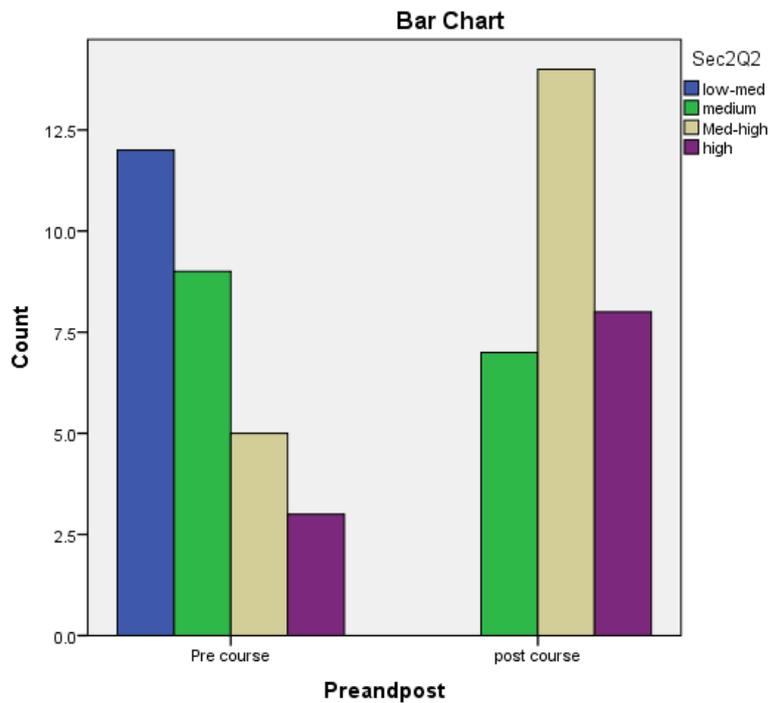
Section 1, Q 6: How would you rate the following – Confidence to provide a detailed account of hearing requirements in patient care plans



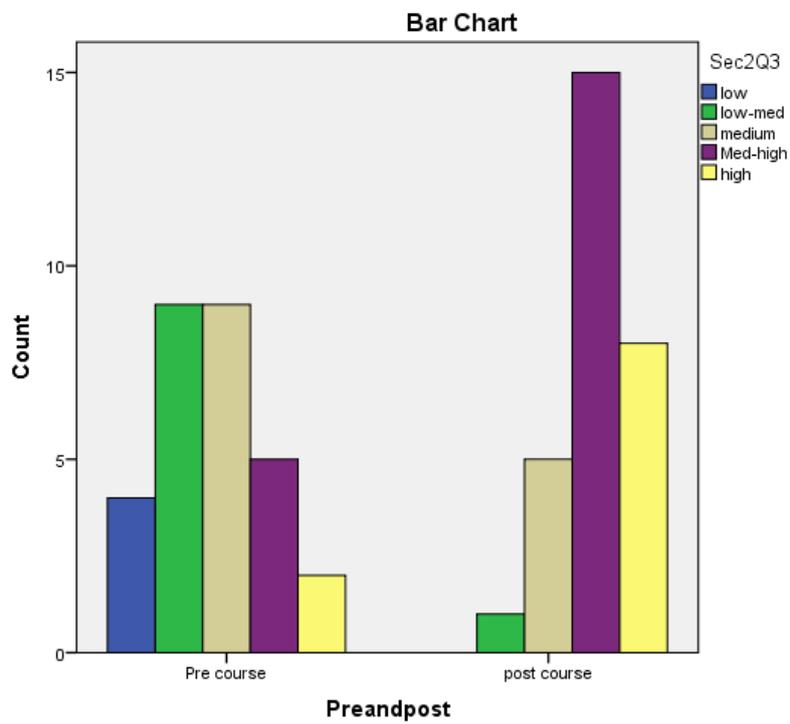
Section 2, Q 1: How would you rate the following – Knowledge of common sight impairments



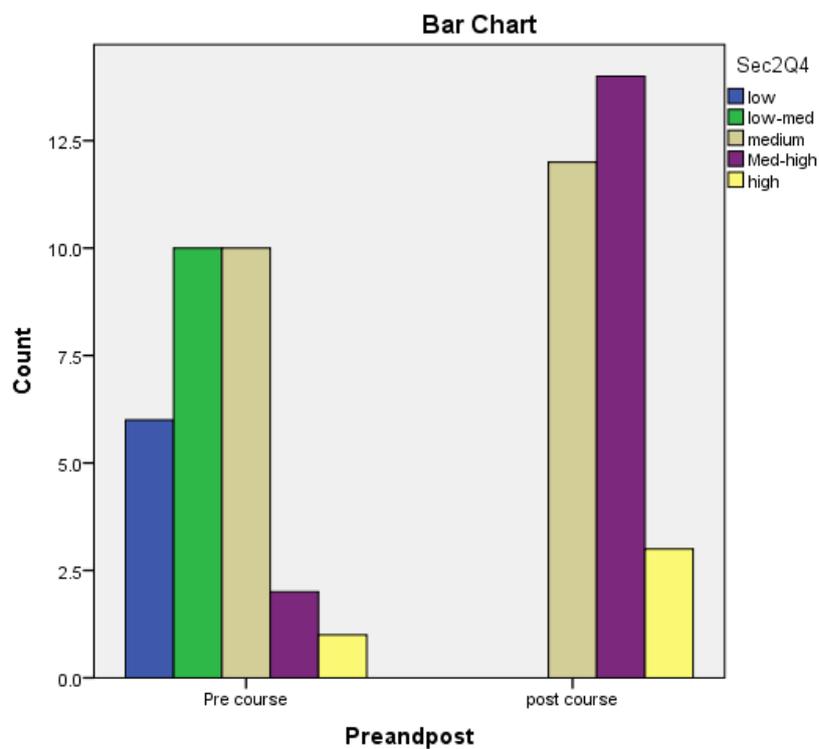
Section 2, Q 2: How would you rate the following – Knowledge of the impact that a sight impairment has on the individual



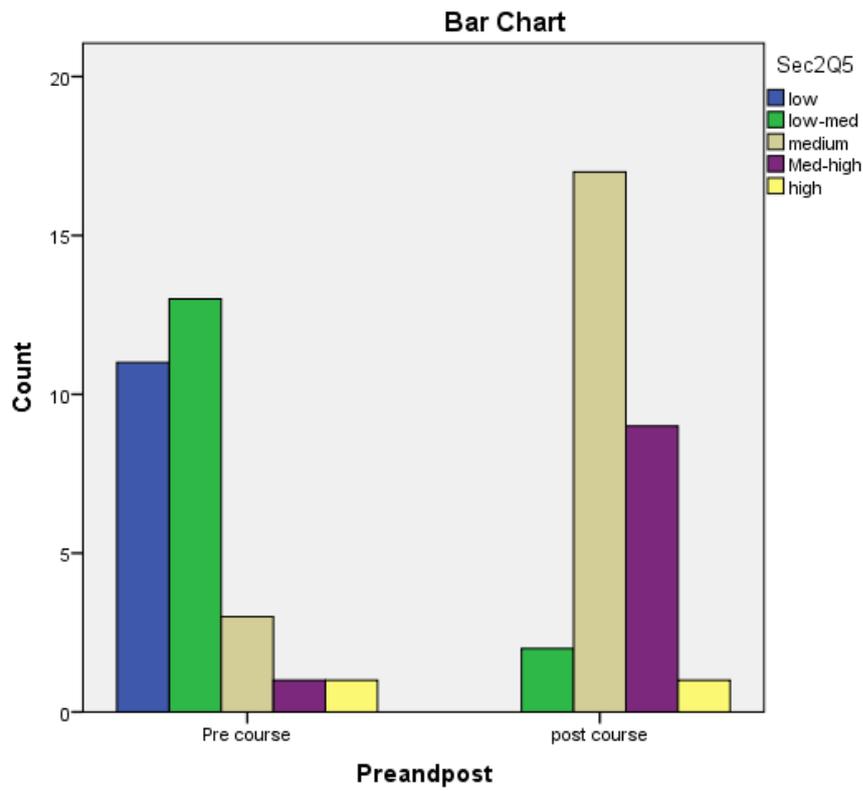
Section 2, Q 3: How would you rate the following – Understanding of the safety risks associated with a sight impairment



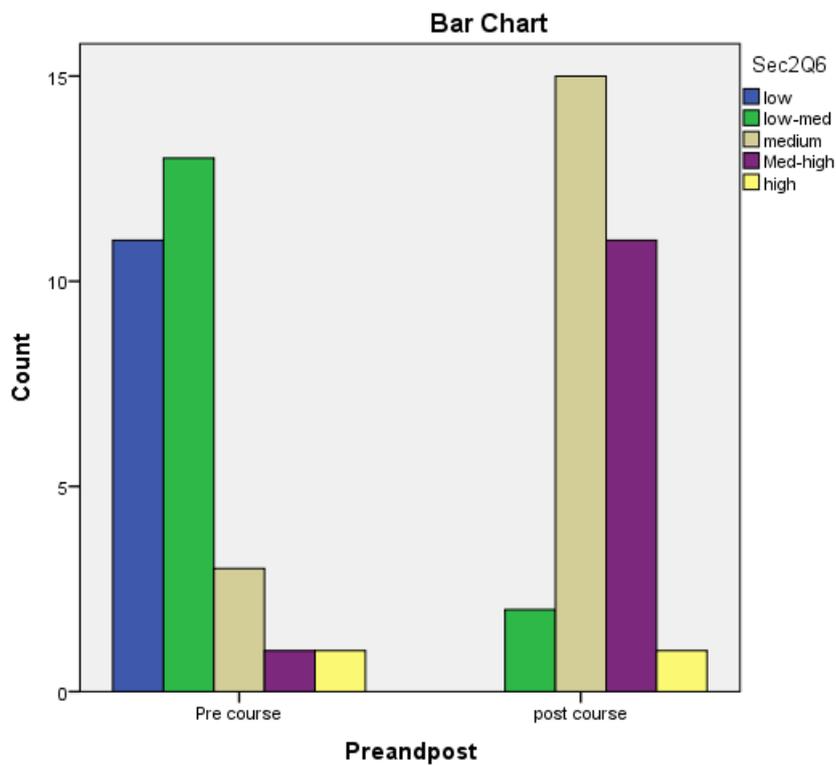
Section 2, Q 4: How would you rate the following – Knowledge of strategies to effectively communicate with a person with a sight impairment



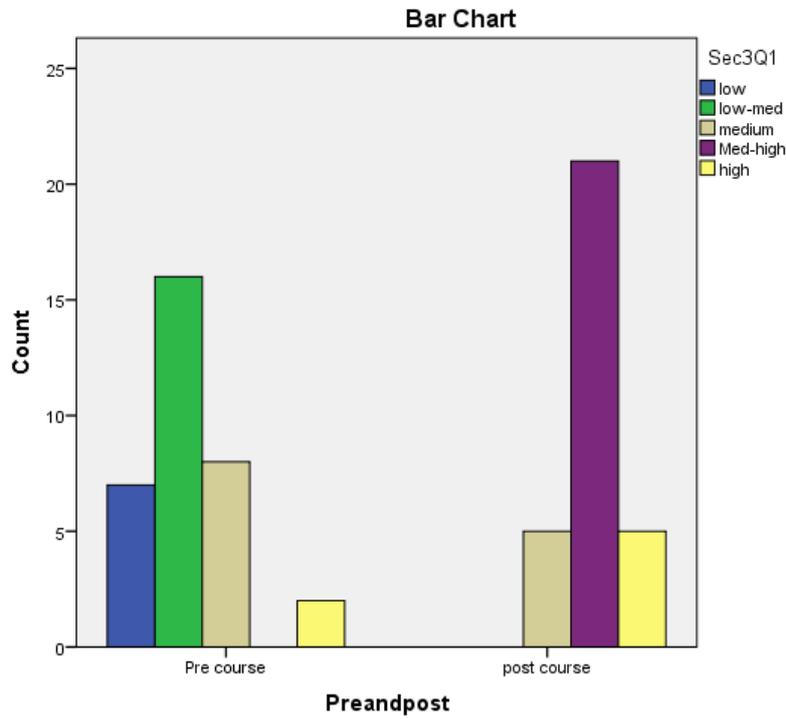
Section 2, Q 5: How would you rate the following – Confidence to assess patients with sight impairment



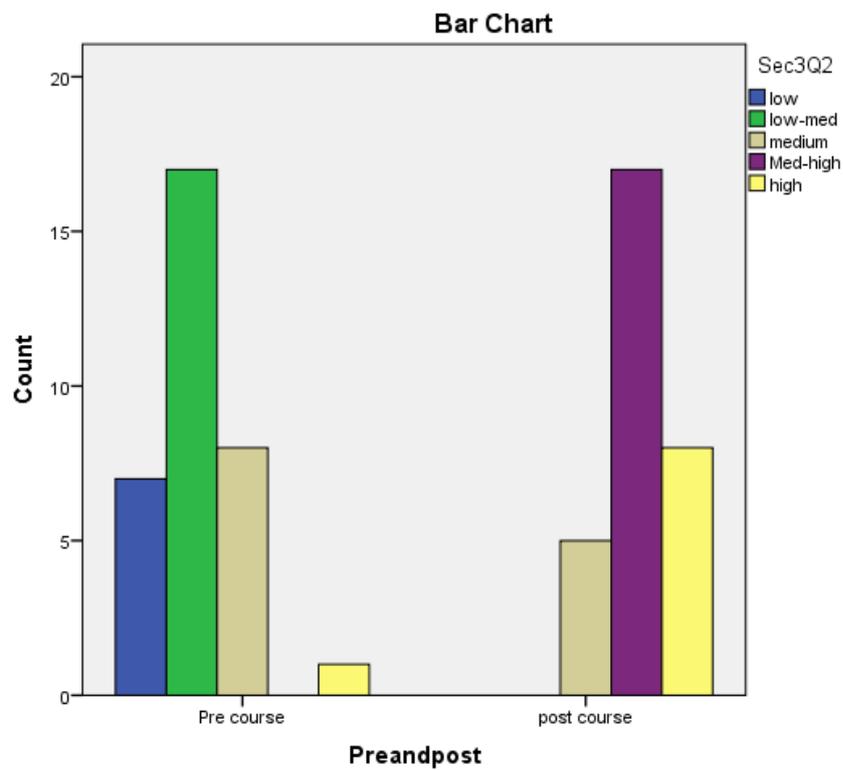
Section 2, Q 6: How would you rate the following – Confidence to provide a detailed account of sight requirements in patients care plans



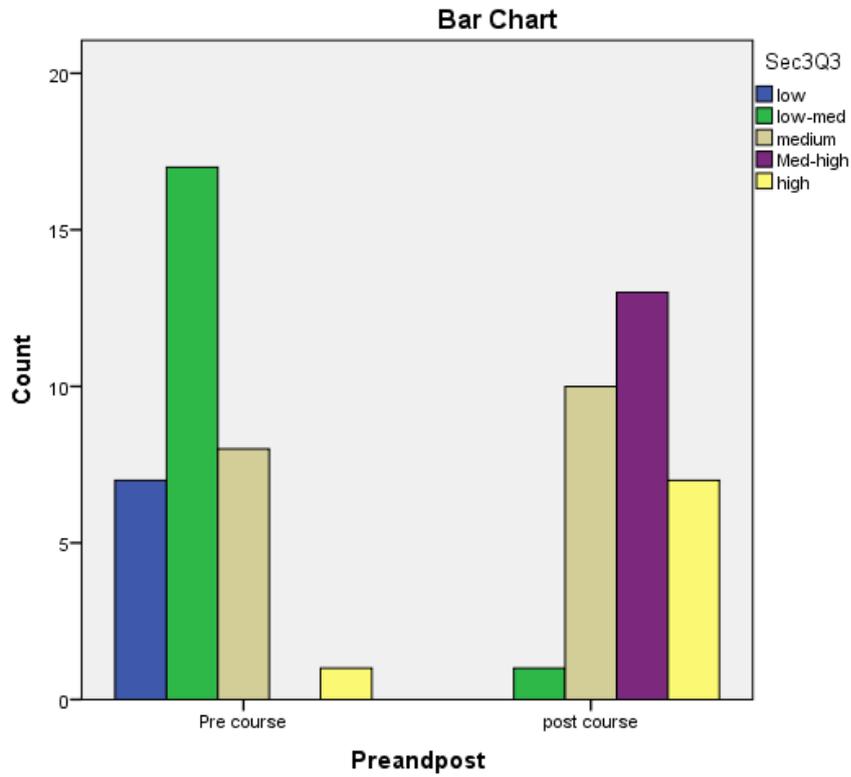
Section 3, Q 1: How would you rate the following – Awareness of service provision for people with a hearing impairment



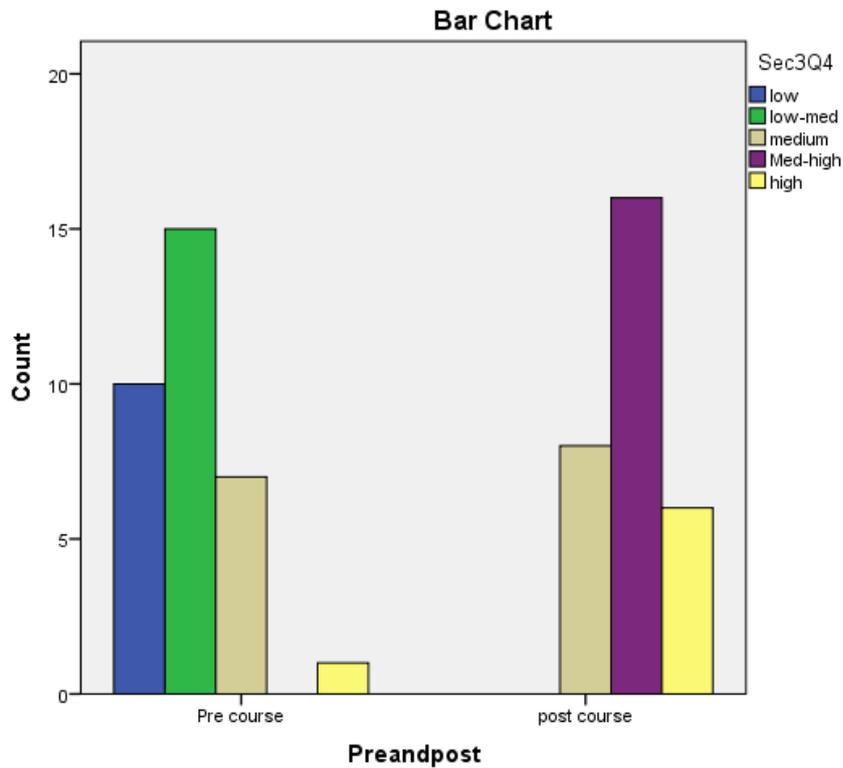
Section 3, Q 2: How would you rate the following – Awareness of service provision for people with a sight impairment



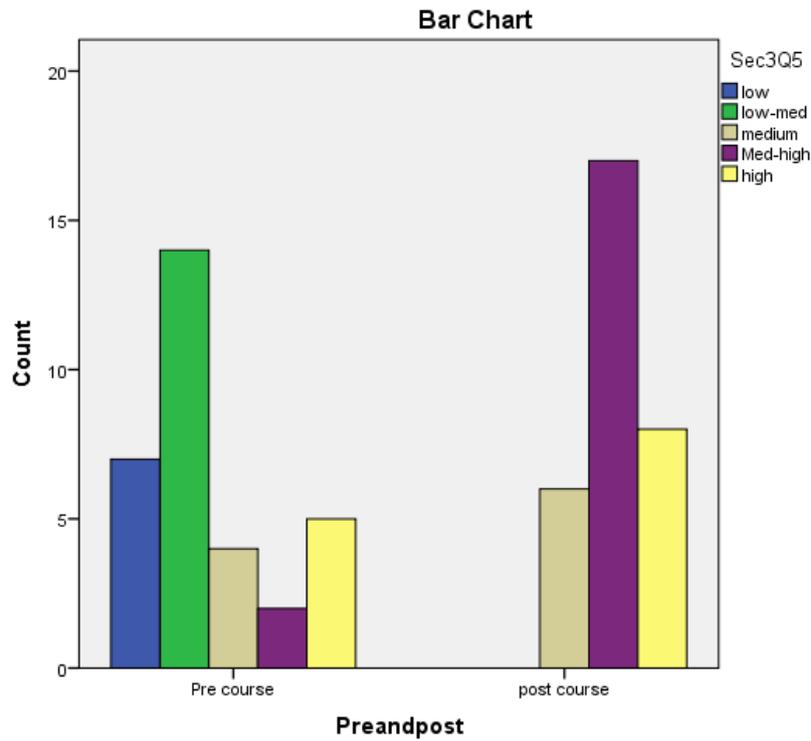
Section 3, Q 3: How would you rate the following – Knowledge of referral processes for people with a hearing impairment



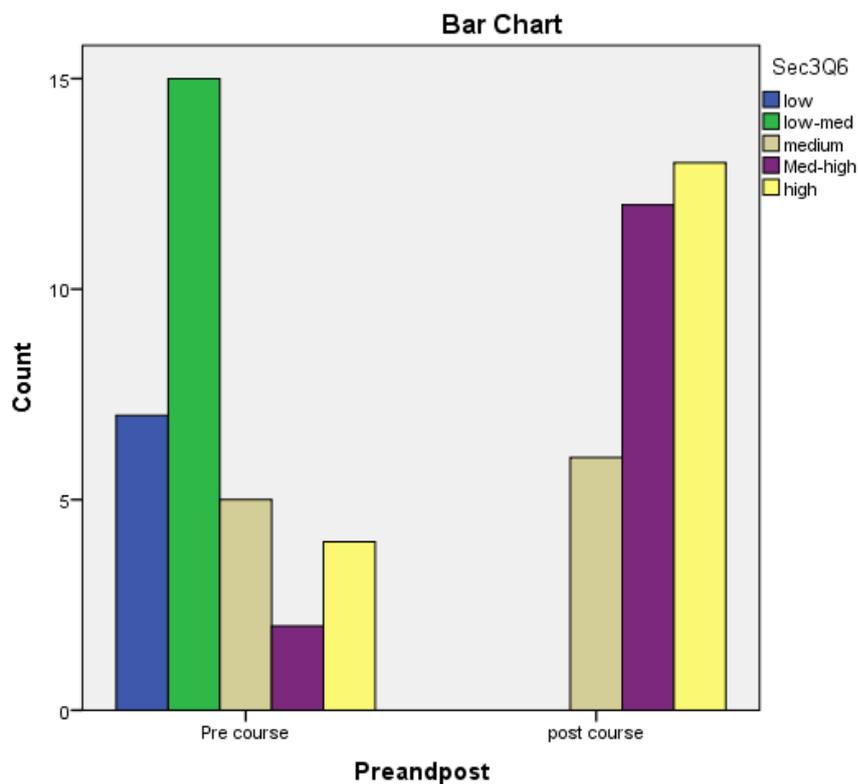
Section 3, Q 4: How would you rate the following – Knowledge of referral processes for people with a sight impairment



Section 3, Q 5: How would you rate the following – Likelihood that you would automatically refer patients to NHS sensory services



Section 3, Q 6: How would you rate the following – Likelihood that you would automatically inform patients/carers about Western Isles Sensory Centre





Appendix 6 Participant information sheet V1 24.9.13

Study Title: – Raising awareness of sensory impairment with nurses working in the community

You are being invited to take part in a research study. Before you decide to participate it is important that you understand both why the research is being done, and also what it will involve for you. Please take the time to read the following information carefully. Take time to consider whether or not you wish to take part in the study. If it would be helpful to you, please feel free to talk to your colleagues or others about the study.

What is the purpose of the study?

Access to information and local services has been recommended by the Scottish Government as one important aspect of service provision to support people. The Commission on Improving Dignity in Care have similarly set out recommendations that include appropriate assessment for sensory impairment [Recommendation 23] and the provision of accessible care for people with sensory impairments. The need to ensure that all those working with older people have the appropriate knowledge and skills has also been highlighted.

The study aims to increase the number of people who access the Western Isles Sensory Service (WISC), and other specialist services for visual and /or hearing assessment and support. Specifically the 3 objectives are:

1. To evaluate the impact of sensory awareness training and elicit the perceptions of nurses working in the community about sensory impairment and service awareness.
2. To appraise the effectiveness of referral strategies to WISC and other specialist services for people with sensory impairments.
3. To identify any barriers or facilitators experienced by the nurses working in the community when referring people to sensory services.

There are two connected elements to this project. The first is to raise the awareness amongst nurses working in the community of sensory impairment amongst patients and public. Both support and organisation of this element of the project will be taken forward by Sensory services and other experts in the project team. The second element is to develop and evaluate referral strategies for people with sensory impairment by community nurses in the Western Isles. Both these elements will be included in the project evaluation.

This study is being conducted in collaboration with community nurses in NHS Western Isles, School of Nursing Midwifery and Health, University of Stirling and Sight Action sensory services. Funding for the project has been provided by Queens Nursing Institute. .

Why have I been chosen?

You have been chosen because you are a community nurse who may care for or come in contact with patients who have a sensory impairment. All community nurses in NHS Western Isles will be invited to participate.

Do I have to take part?

No. It is entirely up to you if you want to take part in the study. Your line manager will not be told if you decline to take part.

If you decide to take part, you can change your mind and withdraw at any time without giving a reason. If you decide that you do not want to take part in the study, or after commencing decide to withdraw from the study, these decisions will not affect any aspect of your work.

What will happen to me if I take part?

You will be invited to take part in a workshop about sensory impairment. You can attend this workshop even if you decline to take part in the rest of the study. If you do agree to participate you will be asked to complete evaluations before and after sensory awareness training to help evaluate impact of the education provided, and your knowledge of sensory impairment services.

A postal survey will be sent to all workshop participants 4 months after attending the workshops to gain your views of the impact of sensory training and your perception of referral strategies.

A sample of nurses who attended the workshops, representing all the community teams in the Western Isles will be invited to participate in a focus group interview of approximately 1 hour's duration. The aim of this interview is to explore with you the impact of workshop participation and perceptions of referral processes, including appraisal of barriers or facilitators. When conducting the focus group video-conferencing will be used to minimise disruption and travel for any participants.

With your permission, the focus groups will be audio-recorded.

What if I have any concerns?

If you have concerns about any aspect of the study or would like more information, please contact me directly by phoning 01851208250 or email: Annetta.smith@stir.ac.uk . If you remain unhappy and wish to complain formally to someone independent to the research team, please contact Professor William Lauder by phoning 01463 255619 or email: William.lauder@stir.ac.uk.

Will my involvement in the study be confidential?

Procedures for handling, processing, storage and destruction of the data will be compliant with the Data Protection Act (1998). As soon as you agree to participate in the study you will be given a unique identification number. If you are asked to participate in the study and decline the researcher will not share this information with anyone.

If you agree to participate, all of the information collected relating to you will be referenced by your unique identification number and not your name. Only the researchers will have full access to all of the information. Any information that can identify you will be excluded from the evaluations and focus groups.

The digital audio recording, transcripts from the audio-recordings and all evaluations related to analysis of the information collected will be stored on a password protected computer; the secure password will be known only to the researcher. Any paper documents relating to the study will be stored in a locked filing cabinet in a locked room.

Any data presented from this study will not identify the participants.

Contact Details

If you have any concerns or would like further information please contact me: Annetta Smith, phone 01851 708250 or email annetta.smith@stir.ac.uk or Ashley Shepherd, phone 01786 466334 or email: ashley.shepherd@stir.ac.uk

What will happen to the results of the study?

You will be asked if you would like a copy of the study report which will be available on completion of the study. The report will also be made available to QNIS who have funded the study. The results may also be presented at conferences or published in academic journals; there will be no information which will allow individual nurses to be identified.

Who is organising and funding the research?

The funding for the project has been provided by QNIS. The study abstract and other information about the Delivering Dignity programme which is supporting this study can be found at: <http://www.qnis.org.uk/funding/delivering-dignity/>

Who has reviewed the study?

This study was approved by the School of Nursing Midwifery and Health, Research Ethics Committee

Thank you for taking the time to read this information sheet and considering taking part in the research study.

Appendix 7 Consent form for Community Nurse
Participation

V.1 24.09.13



**UNIVERSITY OF
STIRLING**

SCHOOL OF
NURSING, MIDWIFERY
AND HEALTH

**Raising awareness of sensory impairment with
nurses working in the community**

Please initial in box

I confirm that I have read and understand the information sheet dated 24.9.13
Version 1 for the above study.

I have had the opportunity to consider the information, ask questions, and have had
these answered satisfactorily.

I am aware that, as part of the study, the focus group conversations will be digitally
audio recorded however if any of this information is presented as part of the study
findings it will be done in a way which will protect my identity.

I understand that my participation is voluntary and that I am free to withdraw at any
time without giving any reason, without my legal rights being affected, and that any
information that I have provided as an individual, up to that point in time, will also be
withdrawn.

I agree to take part in the above study.

Name of Participant

Date

Signature

Name of Researcher

Date

Signature