A prospective study exploring the experience of rehabilitation health professionals in implementing the 5 A`s strategy in addressing risk factors for non-communicable diseases

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DECLARATION

I, Gillion Vearey, hereby declare that the work on which this thesis is based is my original work (except where acknowledgements indicate otherwise) and that neither the whole work nor part of it has been, is being, or is to be submitted for another degree in University of Cape Town or any other university.

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ABSTRACT

Background: The growing epidemic of non-communicable diseases (NCDs) has a significant impact globally and locally in South Africa, not only on mortality rates, but also morbidity; increasing the risk of disability and decreasing the quality of life of people affected by these diseases. Behaviour Change interventions such as Motivational Interviewing (MI) and Five A's (5A's), have been developed and implemented to address the four behavioural risk factors causing NCDs**.** The aim of the study is to explore the implementation of the 5A's strategy as routine in consultation among Rehabilitation Health Professionals (RHPs) working in a clinical setting in the Eastern Cape Province. All rehabilitation health professionals namely; physiotherapists, occupational therapists, speech and language pathologists, and audiologists employed in the Eastern Cape Province, in both public and private sectors, were invited to participate in the study.

Method: A mixed method was used for a three phased study. Convenient sampling was used and recruitment of public sector RHPs was via the provincial rehabilitation director and managers. Similarly, recruitment of private sector participants was through the various professional associations. Later, the researcher directly contacted some RHPs personally to increase the number of participants. Fifteen RHPs consented to participate in the study. Phase one: to describe the effectiveness of MI for behaviour change to address the risk factors of NCDs in South African setting in, a scoping review guided by the Joanna Briggs Institute protocol, was conducted. The databases from which journal articles were extracted were EbScohost, PubMed and Google scholar. Phase two: to assess staff readiness, using an adapted Scale of Staff Valence (SSV), in using MI in routine patient consultations by making use of a cross-sectional survey. In addition, a two-part webinar training in 5A's Framework was implemented. Phase three: to describe the experiences of Rehabilitation Health Professionals (RHPs) in implementing 5A's framework in behaviour counselling, an online focus group discussion and a review of logbook entries were implemented.

Results: The original search identified 21 articles for the scoping review, 11 articles were excluded by title, 2 were excluded by abstract and 1 excluded by full text. Eight articles were included in the review. All the studies were based in the Western Cape Province. Diabetes and CVD were the most common conditions discussed. Most studies delivered training over 3-4days with 2 or more days of follow-up. Outcomes showed benefits of participants being more equipped to deliver MI to patients

with NCDs. However, barriers such as appropriate venues, buy in from other staff, and difficulties in building rapport with some patients were also reported.

Fifteen RHPs participated in this study, with 11 RHPs having more than 5 years' experience in their professional field. For the SSV scores, where a higher score reflects a positive result, for *capability* the average score was 28/35 (80%) with a standard deviation (SD) 2.4 under *opportunity* the average score was 66/77 (86%) with SD 6.6; and under *motivation* average score was 31/35 (90%) with SD 2.2. There was a statistical difference in *opportunity across the years of experience ($p< 0.05$).* These high scores confirm RHPs staff readiness in implementing behaviour change. Two themes emerged following the qualitative analysis of the RHPs' experiences in implementing the 5A's approach, namely 1) *quality of the 5A's* which developed from challenges and benefits of this framework as well as the impact of improved knowledge around behaviour change, and 2) *impact of the clinical setting* which compared the range of clinical settings RHPs practice in and the contact time available to implement the 5A's.

Discussion and Conclusion

MI and the 5A's can be considered a feasible approach to addressing health risk behaviours related to NCDs in South Africa. RHPs discussed the value and benefits of training and equipping in behaviour change strategies. The findings of this study also conclude that RHPs, such as physiotherapists, can play a significant role in promoting healthy behaviour and facilitate patient self-efficacy. Improving the knowledge and understanding of their role amongst fellow health professionals could spread the load in health promotion, especially in the field of NCDS. However, barriers and challenges do exist, such as the limited patient contact time and the stage of behaviour change of each patient, influencing the effectiveness of this approach; especially in an acute setting. RHPs practicing in a subacute or outpatient setting are better suited to implement such an approach considering their contact time to build rapport with patients. These RHPs may be a more appropriate study population for future research. The 5A's framework and motivational interviewing can have a significant impact on NCDs in South Africa, further research is required to determine the long-term effects of such interventions.

Contents

DEFINITION OF TERMS

AIDS	Acquired Immunodeficiency Syndrome
AUD	Audiology
CHW(s)	Community Health Worker(s)
COVID-19	Coronavirus disease of 2019
CVD	Cardiovascular Disease
DOH	Department of Health
EC	Eastern Cape Province
ECDOH	Eastern Cape Province Department of Health
HIV	Human Immunodeficiency Virus
ICF	International classification of function and disability
JBI	Joanna Briggs Institute
MI	Motivational Interviewing
NCDs	Non communicable diseases
OT	Occupational Therapist
PCP	Primary Care Provider
PHC	Primary Health Care
PT	Physiotherapist
RHP(s)	Rehabilitation Health Professional(s)
SLT	Speech and Language Therapist
SSV	Scale to Staff Valence
TB	Tuberculosis
WHO	World Health Organisation

LIST OF FIGURES AND TABLES

Chapter 1: INTRODUCTION

This chapter will include a brief background to the study carried out, and information relating to the epidemiology and risk factors of NCDs, and the disabilities that may develop. In addition, the chapter presents the rationale for the study, as well as the problem statement, research questions, aims and objectives of the study. Finally, a brief description of the research setting is provided.

Background

Concerns over the prevailing impact of avoidable non-communicable disease-related death and disability prompted the World Health Organisation (WHO) to promote preventive global strategies (Reddy, 2020). Non-communicable diseases (NCDs) - mainly cardiovascular diseases, cancers, chronic respiratory diseases, and diabetes – contribute most to global mortality and morbidity (WHO, 2013a). The recent global coronavirus (COVID-19) epidemic has added to the urgency to promote preventive strategies as NCDs (diabetes mellitus, hypertension, cerebrovascular disease, coronary artery disease, and chronic obstructive pulmonary disease) have been shown to predict poor prognosis in patients with COVID-19 (Pal & Bhadada, 2020).

1.1 Epidemiology

Globally, approximately 41 million people die annually because of NCDs, and there has been a surge in the burden of NCDs in sub-Saharan Africa over the past two decades, driven by increasing incidence of cardiovascular risk factors such as unhealthy diets, reduced physical activity, hypertension, obesity, diabetes, dyslipidaemia, and air pollution (Bigna & Noubiap, 2019). Twenty-eight million of these deaths occur in low - and middle-income countries (LMICs) (Bigna & Noubiap, 2019; WHO, 2022). A systematic review revealed the occurrence of co-morbidities among over one third of 9061 individuals living in Western Europe (with average age of 63.9 years) with NCDs (Licher et al., 2019). The same study reported the impact of smoking, hypertension, and obesity on life expectancy for any of the NCDs from the age of 45 years was 94% for men and 92.8% for women (Licher et al., 2019).

The surge in the burden of NCDs in sub-Saharan Africa has been driven by increasing incidence of cardiovascular risk factors such as unhealthy diets, reduced physical activity, hypertension, obesity, diabetes, dyslipidaemia, and air pollution, resulting in calls to double the efforts needed to curb the burden of NCDs in the region (Bigna & Noubiap, 2019). South Africa has a quadruple burden of

disease: communicable diseases, NCDs, perinatal and maternal health problems, and injury related conditions (Mayosi & Benatar, 2014). The WHO country profile of 2016 for SA showed that 51% of annual deaths were attributed to NCDs, and 26% of these were premature deaths (WHO, 2018). Despite the burden of HIV/AIDS and other communicable diseases, the incidence of NCDs is rising and affecting much younger individuals (DOH, 2013). The WHO has projected NCDs to be the major cause of death in the African region by 2030, because of genetic, physiological, environmental, and behavioural factors (WHO, 2013a). Locally, the South Africa Medical Research Council refers to these conditions as "chronic diseases of lifestyle", citing urbanisation and lifestyle changes as the major causes for the increase in obesity, resulting in diabetes mellitus and other nutritional blood disorders (Nojilana et al., 2016).

1.2 Risk factors and Disability

"Chronic diseases of lifestyle" is a suitable description of NCDs, especially when related to the four main contributing behavioural risk factors, namely; tobacco use, physical inactivity, unhealthy diets, and harmful use of alcohol (WHO, 2017).

Furthermore, NCDs related to behaviour risk factors are a major cause of disability worldwide (Kruk, Nigenda, & Knaul, 2015). A study on the global burden of disease has identified the benefits of rehabilitation linked to health conditions such as NCDs (Richards et al., 2015). Approximately 74% of years lived with disability (YLDs) are attributed to NCDs such as diabetes and cardiovascular disease for which rehabilitation is beneficial (Richards et al., 2015).

Within a South African context, a strategy focused on the prevention and management of NCDs with associated risk factors was derived from the WHO's Global action plan (WHO, 2013a). This strategic plan outlines three main components to combat NCDs - healthy lifestyle promotion, health systems strengthening, and monitoring cases and risk factors (DOH, 2013). The Regional Office of the WHO Eastern Mediterranean Region acknowledges that primary prevention refers to actions aimed at avoiding the manifestation of a disease which may include measures to decrease them at the personal and community level (WHO, 2024). Secondary prevention deals with early detection when this improves the chances for positive health outcomes. Screening and early detection is of limited value if abnormalities cannot be promptly corrected or treated through services from other parts of the health care system. It is believed that a good system of primary health care facilitates the optimal organization and delivery of accessible population-based screening programs and should be

vigorously promoted. Unfortunately, in this study, secondary prevention is incorrectly referred to as primary prevention.

Behaviour change interventions are a form of health promotion used to address the behavioural risk factors of NCDs across the globe such as USA, Netherlands, Korea and South Africa (Chandrasiri, Dissanayake, & de Silva, 2016; DOH, 2020; Holden, Davidson, & O'Halloran, 2015; Mauch et al., 2022; Prochaska & Prochaska, 2011; van Achterberg et al., 2011). A review of multiple behavioural risk factors Interventions in primary care stated that primary health care (PHC) clinicians have a vital role in behaviour change (Goldstein, Whitlock, & DePue, 2004). Motivational interviewing (MI), an approach to behaviour change, is described as a collaborative, goal-orientated style of communication that is patient-centred (Miller & Rollnick, 2013). Motivational interviewing is considered a less confrontational approach in behaviour change as counselling is guided by the patient (Malan, Mash, & Everett-Murphy, 2015). The Transtheoretical Model describes 5 stages of behaviour change (pre-contemplation, contemplation, preparation, action and maintenance) that may be used in a stage-match approach to facilitate behaviour change (Prochaska, Johnson, & Lee, 1998; Zhu, Ho, & Hung Sit, 2014). Understanding a person`s readiness to change is vital in the implementation of the 5 A's. The 5 A's framework in behavioural change counselling is gaining momentum as an all-purpose counselling model that providers can use to produce desired behavioral changes such as smoking cessation, dietary change, reducing alcohol consumption, and managing body weight (Sherson, Jimeneza, & Katalanosa, 2014). The 5 A's framework consists of five constructs, namely: assess, advise, agree, assist, and arrange. This allows for integration into consultation times with patients and takes approximately 10 minutes (Sherson et al., 2014).

1.3 Rationale

The South African health system is based on the PHC approach, favouring prevention rather than cure. It is the contention of the researcher that Rehabilitation Health Professionals (RHPs); namely physiotherapists, occupational therapists, speech and language therapists, and audiologists, should be actively involved in primary prevention, i.e. from the onset of NCD`s and the prevention of complications due to NCD`S, e.g. strokes and amputations. RHPs have more time to build rapport and trust over periods of weeks, months and even years for suitable follow-up of behaviour change. Behaviour-change counselling strategies are an effective tool to facilitate lifestyle changes related to health risk behaviour linked to NCDs (Noordman, van der Weijden, & van Dulmen, 2012). However,

what cannot be overlooked, especially as it relates to this study for a postgraduate degree in Physiotherapy, is the concern about the preparedness of Physiotherapists who are part of the RHPs working in PHC setting in South Africa (Kredo et al., 2020; Narain & Mathye, 2023; van de Water et al., 2021). This is reviewed in chapter 2. However, this does not suggest that the value of the other Rehabilitation Health Professionals can be overlooked as there is evidence of efforts to prepare OT graduates for service delivery in primary healthcare contexts (Naidoo & Van Wyk, 2023; Ned, Cloete, & Mji, 2017).

1.4 Problem statement

There is a growing risk in mortality and morbidity related to NCDs. In its report (03-08-01), Statistics South Africa reported that there are substantial differences between provinces in terms of burden of NCDs and mortality rates. KwaZulu-Natal, Gauteng, Western Cape and Eastern Cape provinces have some of the highest number of deaths due to NCDs, while the Free State province has one of the lowest in absolute numbers. The South African National Strategic Plan for the Prevention and Control of Noncommunicable Diseases (2022–2027) included strategies to reduce the levels of modifiable risk factors such as tobacco use and unhealthy diets through health promotion and supporting research for the prevention and control of NCDs (DOH, 2022). No research was found that explores the use of motivational interviewing amongst.

A review by the SAMRC (Freeman, Simmonds, & Parry, 2020) suggested that there was still much to do nationally in health promotion and prevention to foster healthy lifestyle practices. The national strategic plan recommended that the screening programmes be extended to patients when attending clinics for other reasons, thus providing opportunities for preventing NCD morbidity and mortality (DOH, 2013).

In 2015, the Western Cape government through its Department of Health launched the Western Cape on Wellness (WoW!) initiative to promote a culture of wellness at and across the workplace, community, and school levels through health-related physical activities and healthy eating (Sheik, Evans, Morden, & Coetzee, 2016). The initiative trains and supports champions across school, worksite, and community settings to establish WoW! Clubs, which are spaces to initiate and motivate the development of healthy habits.

Attempts to address issues of NCDs in the Eastern Cape seem to still focus primarily on early screening (Monakali, Goon, Seekoe, & Owolabi, 2018; Morris-Paxton, Rheeder, Ewing, & Woods, 2018; Rheeder, Morris-Paxton, Ewing, & Woods, 2017), highlighting the need for effective strategies and wellness programmes that will foster healthy lifestyle practices (Catley et al., 2022; van der Does & Mash, 2013).

It is the assertion of the researcher that Rehabilitation Health Professionals (RHPs) may be the best suited to address the associated behavioural risk factors during routine consultations with the patients. However, RHPs may not be sufficiently equipped to address these risk factors, namely smoking, harmful use of alcohol, poor dieting, and physical inactivity.

1.5 Aim

The aim of the study is to explore the implementation of the 5A's strategy as routine in consultation among RHPs working in a clinical setting in the Eastern Cape Province.

1.6 Research Questions

1. How effective is Motivational Interviewing when used for behaviour change in NCDs in South Africa?
2. Are RHPs suitably placed to provide behaviour change counselling?
3. What are the experiences of RHPs in implementing behaviour change counselling?

1.7 Objectives

- To describe the use of MI for behavior change in a South African setting.
- To describe the level of staff readiness of RHPs to implement the 5A's framework in their clinical setting in terms of capability, opportunity, and motivation.
- To provide training on the 5 A's framework to address the risk factors of NCDs
- To describe the experiences of RHPs in using the 5A's Framework in behavioural counselling with clients in consultations.

1.8 Research Setting

The Eastern Cape Department of Health (ECDOH) reported that the province is the second largest province in the South African landscape with an estimated population of 6.7 million in 2020 (ECDOH,

2020). Nelson Mandela Bay Metropolitan is one of eight health districts with an estimated population of 1.2 million, the second most populated health district in South Africa. Eighty-eight percent of the provinces' population is serviced by the Eastern Cape (EC) public health sector and the services are based on the Primary health care (PHC) concept, while the private health sector services the other 12% of the population (Kredo et al., 2020; van de Water et al., 2021). Forty-eight percent of the population of the province are unemployed, the highest unemployment rate in South Africa. Unemployment rate in the metropole was 42.3% (ECDOH, 2020; Kredo et al., 2020). Furthermore, the impact of poverty on health and health care is considered to be significant, contributing to the high burden of disease in South Africa, and more specifically the EC Province.(ECDOH, 2020; Mayosi & Benatar, 2014).

The metropole is divided into three sub-districts, with 53 PHC facilities, one regional, and three tertiary hospitals (Melariri, Kalinda, & Chimbari, 2021). PHC is described as mostly preventive with a minor focus on curative. The areas of focus included maternal, child and women's health, and nutrition, HIV, AIDS, TB, and the prevention of chronic diseases (ECDOH, 2020). The leading causes of death in the metropole health district contributing to burden of disease are HIV/AIDS, TB, cerebrovascular disease, and diabetes (Massyn, Day, Ndlovu, & Padayachee, 2020).

RHPs in the EC treat and manage inpatients and outpatients. RHPs employed by the EC Department of Health, providing rehabilitation for public sector total 441 (OT 171, PT 194, ST & Audio 76) (ECDOH, 2020). Private sector RHPs service both outpatient and inpatient clinical setting. The data excludes those in the private sector as access to exact numbers of private rehabilitation professionals were not accessible due to the Protection of Personal Information Act which limited the access to information regarding private sector RHPS.

Chapter 2: LITERATURE REVIEW

This chapter includes the epidemiology of NCD`s globally, and specific to South Africa, and the research-study context, and types of behaviour change strategies along with their outcomes. The review includes published literature in English sourced from EBSCOhost, PubMed, and Google Scholar. Articles were published from 2008 to date. Only articles freely accessible were included in the literature review.

2.1 Epidemiology

The Global burden of disease study by Murray & Lopez predicted that by 2020, seven out of ten deaths globally would be caused by NCDs (Murray & Lopez, 1996). As previously stated, the WHO has confirmed this prediction, reporting that 74% of global deaths can be attributed to NCDs (WHO, 2022).

Changes in demographics, such as the ageing population, and change in the environment such as urbanization and industrialization, have been major contributing factors to the rise in NCDs (Habib & Saha, 2010). Similarly, changes in eaten patterns and lifestyles becoming more sedentary has also contributed to growing number of NCDs globally (Habib & Saha, 2010).

Cardiovascular disease is considered the most prominent NCD globally, followed by cancers, respiratory conditions and diabetes mellitus (Habib & Saha, 2010; WHO, 2022). The incidence of obesity has been trending upwards in high income countries, such as China and Malaysia, and similar trends have been reported in low-middle income countries such as South Africa and Brazil (Habib & Saha, 2010).

South Africa has a quadruple burden of disease which include:, communicable, NCDs, perinatal and maternal, and injury related conditions, that speaks to the growing number of premature deaths (Mayosi et al., 2009; WHO, 2018). Despite the burden of HIV/AIDS and other communicable diseases in the country, the incidence of NCDs is rising, mostly affecting people 60 years and older (Dean et el., 2014). In 2016, the WHO country profile shows that of deaths occurring annually, NCDs attributed to 51% of deaths (WHO, 2018). Eastern Cape Province's leading causes of death in 2017 included HIV/AIDS (14%), Tuberculosis (12%), cerebrovascular disease (5.4%), interpersonal violence (5.3%), lower respiratory infections (5.2%), and hypertensive heart disease (4.1 %) (Massyn et al., 2020).

2.2 Risk Factors

Multiple risk factors are associated with NCDs. These risk factors are categorised into non-modifiable (age, gender, ethnicity, and family history), metabolic (raised blood pressure, obesity, high glucose level) and behavioural (modifiable) risk factors (smoking, physical inactivity, unhealthy diet and harmful use of alcohol) (Cui & Naikoo, 2019; Mishra, Srivastava, Muhammad, & Murthy, 2022).

In view of these behavioural risk factors, a large percentage of NCDs could be preventable. Among these, smoking is the leading risk factors resulting in morbidity and mortality, particularly in LMICs (WHO, 2022). This is because smoking affects the rate of plaque formation on the coronary and cerebral artery walls, increasing blood pressure(BP) which can cause stroke or CVD (Eddy et al., 2009) The combination of smoking and alcohol consumption resulted in an even higher risk of NCDs based on a study on women in India (Mishra et al., 2022).

The World Heart Foundation (WHF) reported that hypertension, which is defined as elevated arterial blood pressure, is the biggest modifiable risk factors for stroke and increased risk of myocardial infarction (Jeemon et al., 2021; WHF, 2017). Physical inactivity, also referred to as sedentary living, is a risk factor for NCDs such as cardiovascular disease, type 2 diabetes, and cancers (Katzmarzyk et al., 2019; Mayosi et al., 2009). Physical inactivity as an independent risk factors has a significant impact on NCDs, i.e. should a patient start exercising, but continue smoking, the positive impact on their health related to NCDs is still significant (Lee et al., 2012). Furthermore, Motivational Interviewing (MI), which the American Heart Association recommended as an effective approach to addressing the risk factors of CVD, has proven effective in changing physical activity up to 6 months post intervention (Seib et al., 2018).

Alcohol is one of the main risk factors associated with disability and mortality (Holmes et al., 2014). A recent cohort study assessed the risk of cardiovascular disease with alcohol intake using more than three hundred thousand participants in UK found that the risk of cardiovascular increases with total amount of alcohol consumed weekly (Biddinger et al., 2022).

Health factors related to unhealthy dieting include obesity, poor control of blood sugar levels, BP, and cholesterol (Cena & Calder, 2020). Despite the incidence of NCDs resulting in morbidity and mortality, mostly occurring in adulthood, the exposure to the above-mentioned risk factors starts at

a young age (DOH, 2013). Of the 51% of adults suffering from NCDs in South Africa (WHO, 2018), 24% of them are smokers, 27% are obese, and 48% are considered inactive (DOH, 2007; Samodien, Abrahams, Muller, Louw, & Chellan, 2021).

2.3 Non-Communicable Diseases and Disability

The WHO defines disability using the International Classification of Functioning, where physical, psychological and cognitive impairment affects functional ability, activities of daily living and participation in social and work related activities (WHO, 2013b). The four leading NCDs namely, cardiovascular disease, chronic respiratory disease, cancer and diabetes, can lead to challenges related to mobility, blindness, amputation and speech pathologies (Richards et al., 2016).

The first global report on disability reported that 15% of the world's population live with disabilities due to the ageing population and chronic health conditions related to health behaviour such as physical inactivity and smoking (WHO, 2011). With an increase of the burden of NCDs globally (Wagner & Brath, 2012) and in South Africa (Mayosi et al., 2009) there is also an increased risk of disability and furthermore a higher percentage of years living with disability (WHO, 2017). The prevalence of severe disability related to health conditions increased by 23% between 2005 to 2015 (WHO, 2015). The increasing prevalence of disability points to an even greater need for access to rehabilitation, especially in LMIC, which is emphasised by the WHO Rehabilitation 2030 (Gimigliano & Negrini, 2017

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With an increased risk of disability as a result of NCDs, rehabilitation services should be widely accessible. According to the South African Department of Health's (DOH) strategic plan for health, an emphasis has been placed on access to rehabilitation services at a PHC level (DOH, 2013). National Health Insurance is a health financing system being developed and implemented, providing access to all healthcare services to South Africans regardless of their socioeconomic standing (DOH, 2015). National Health Insurance plans to use PHC as the entry point to access comprehensive health services, closer to where South Africans live and work. These services include health promotion, prevention, and rehabilitation (DOH, 2015).

With the risk of disability increasing as the risk of NCDs increases, RHPs have a role in the management of secondary conditions and complications resulting from these NCDs such as a stroke

related to CVD or a lower limb amputation as a result of type 2 diabetes (Eddy et al., 2009; Harris-Hayes, Schootman, Schootman, & Hastings, 2020). Harris-Hayes et al. (2020) goes on to further emphasise the vital role of physiotherapists in the prevention of diabetes and in assisting diabetic patients in the management of musculoskeletal complications, improving levels of physical activity, and providing rehabilitation following lower limb amputations. The relationship between NCDs and disability has been described as strong and bidirectional (Prynn & Kuper, 2019). Both require interventions to improve quality of life which could be offered by RHPs (Harris-Hayes et al., 2020; Prynn & Kuper, 2019).

2.4 Behaviour change Strategies

The WHO developed a Global Action Plan for the prevention and control of NCDs and associated risk factors in response to this trend regarding the incidence of NCDs and their associated behaviour risk factors, which provided a road map and policy options for WHO member countries to implement (WHO, 2013a). The third objective of Global Action Plan is to reduce modifiable risk factors for NCDs and underlying social determinants through the creation of health-promoting environments. The South African National Department of Health also held a summit in September 2011, acknowledging that NCDs required an "intensified national action" health plan which should address prevention, early detections, behavioural change, and treatment interventions (Shisana et al., 2013).

Furthermore, the financial burden of NCDs and the increased risk of disability the South African DOH has emphasised the need for "comprehensive" and "robust" strategies for promotion and prevention to address the behavioural risk (DOH, 2022; Thom et al., 2023).

A South African based study investigated the level of knowledge of health care professionals (doctors, nurses and health promoters) to facilitate behaviour change found that only 20% of participants achieved high scores (Everett- Murphy, Mash, & Malan, 2016). Participants described their previous training in behaviour change interventions as brief and primarily theoretical with no practical outworking (Everett-Murphy, Mash, & Malan, 2016).

2.5 Health Promotion

Health promotion is defined as "the process of enabling people to increase control over, and to improve their health" (WHO, 1998), and is also a cost-effective way to address health concerns such as NCDs (Taukobong, Myezwa, Pengpid, & Van Geertruyden, 2014). Since the inception of the Ottawa

Charter for Health Promotion in 1986, health promotion has become more integrated in public health across the world (Potvin & Jones, 2011). Van Teijlingen et al. (2021) discusses the WHO principles to health promotion and clarifies the use of education, information, community development, and legislation at an individual, community, and policy levels to address the causes of disease.

The effectiveness of health promotion and prevention interventions to address NCDs was assessed in a systematic review by Jeet et al (2017). These interventions were delivered by community health care workers in various forms such as group or individual education sessions, home visits, school interventions, issued with health promotion material, peer led activities (Jeet, Thakur, Prinja, & Singh, 2017).

2.6 Population level: Media and Policies

Information posters and pamphlets are used as a method to promote healthy lifestyles for all patients, including those with chronic diseases such as NCDs (Parker, Steyn, Levitt, & Lombard, 2012). Multiple community-based interventions have been developed and implemented globally and have been found to be successful in addressing NCDs and associated risk factors, reducing both mortality and morbidity (Khan et al., 2015). A recent systematic review investigated the impact of "traditional media," i.e., posters and pamphlets, on health promotion particularly with the increased use of digital media (Barik, Purwaningtyas, & Astuti, 2019). The studies included in this review addressed various health conditions such as oral health and Lyme disease, behaviour change, such as reduced salt intake and smoking cessation, malaria awareness, and cancer prevention. Most studies were conducted in developed, high-income countries, such as the United States and China. LMICs such as South Africa, India, and Malaysia attributed to 38% of countries (Barik et al., 2019). The review concluded that the use of traditional media is beneficial for adult patients to promote health and self-efficacy (Barik et al., 2019).

In 2018 South Africa introduced a health promotion levy on "sugar-sweetened beverages," i.e., increasing the tax per gram of sugar, to reduce the risk of NCDS such as diabetes and obesity (Beauchamp, Crawford, & Jackson, 2019; Stacey et al., 2021). Policies involving excise taxation on alcohol and tobacco have been implemented to promote health and reduce the burden on the public health care system (Stacey, Summan, Tugendhaft, Laxminarayan, & Hofman, 2018). According to the National Treasury of South Africa budget review (2023), excise taxation on tobacco and alcohol sales are due to increase in 2023/2024 with expected inflation by 4.9% from 40% (tobacco) and alcohol

(wine, beer, and spirits) from 11%, 23% and 36% respectively (NTSA, 2023). Despite the excise taxation on tobacco use increasing to above 40%, this remains lower than the Framework Convention on Tobacco Control and WHO's recommendation of 70% (Stacey et al., 2018). Stacey and his co-authors developed a mathematical model related to health and tobacco and alcohol sales, to determine the impact of a further increase in excise taxation. The results yielded a significant improvement in adjusted years of living, i.e. gain of life years (Stacey et al., 2018). Furthermore, a simulation of three degrees of increase in tobacco excise taxation (low: 50%, medium: 60%, high: 70%) resulted in even more significant gains in life years. Similar results were predicted with beer and sugar-sweetened-based beverage taxation increases (Stacey et al., 2018). These results signify cooperative-based approaches to addressing NCDs, including the involvement of governmental stakeholders, not only on the individual.

A recent study describing the behaviour change initiatives in Africa was done in 2023 (Mogo et al., 2023). The study aimed to explore whether the initiative served the needs of a country's health burden. Almost 20% of the behaviour change initiatives were based in South Africa, followed by Kenya with 12.5% and Nigeria with 105 % (Mogo et al., 2023). Sixty-one percent of the initiatives were described as "Education: increasing knowledge around behaviour change", and in South Africa more than 56% of these initiatives focused on communicable diseases such as HIV/AIDS, despite the growing epidemic of NCDs in South Africa (Mogo et al., 2023). The study did not indicate the specific behaviour change strategies or techniques; however, it does speak to the efforts of the South African government is taking to address risky health behaviour.

2.7 Individual level: Behaviour change strategies and theories

Behaviour change strategies have historically been used in addiction (Shinitzky & Kub, 2001), and in recent times these have been adapted for health risk behaviour modification (Holden et al., 2015). Furthermore, the burden of NCDs financially and the increased risk of disability the South African DOH has emphasised the need for "comprehensive" and "robust" strategies for promotion and prevention to address the behavioural risk factors (DOH, 2022). Staff readiness is considered crucial in implementing behaviour change strategies amongst health care professionals, including RHPs. A recent study in Hong Kong explored the application of the use of the International Classification of Functioning, Disability, and Health (ICF) and aimed to develop a framework and scale to assess the readiness of staff to implement ICF practices. The key roles of RHPs were discussed in the care and

support of people with disabilities (Michie, van Stralen, & West, 2011; Wong, Wong, & Kwan, 2020). The factors contributing to staff readiness, such as the content of change, the change process, and the individuals' traits, may also contribute to introducing and implementing changes in practice. Using the Capability, Opportunity and Motivation-Behaviour model, which categorises behaviour into three aspects *capability, opportunity, and motivation,* the Scale of Staff Valence under ICF-based practice (SSV-ICF) was developed (See appendix D) (Michie et al., 2011; Wong et al., 2020). This scale may be a valuable tool in determining staff readiness and measuring the outcomes training interventions.

Social cognitive theory (SCT) was developed in the field of psychology which can be applied in various sectors including health care (Bandura, 2001; Beauchamp et al., 2019). This theory stipulates that self-efficacy, i.e., one's personal ability to perform a task, is the main factor that influences behaviour (Bandura, 2004). The effective outworking of the social cognitive theory, particularly pertaining to healthcare, is determined by a group of key factors; *knowledge, perceived self-efficacy, outcome expectations, perceived facilitators, and impediments* (Bandura, 2004; Beauchamp et al., 2019*).* Self-regulation is one of the key concepts of social cognitive theory which over-arches self-monitoring, self-judgement, and self-evaluation components (Bandura, 1991). Beauchamp et al. (2019) conducted a systematic review of studies using social cognitive theory of self-regulation and reported positive outcomes in health-related behaviour in NCDs; such as weight loss, asthma, and cardiac conditions.

The Transtheoretical Model consists of 5 stages: precontemplation, contemplation, preparation, action, and maintenance [(Prochaska et al., 1998). A randomized control trial, with people diagnosed with coronary heart disease, compared a *conventional care group*; which included an 2-hour patient education session, a cardiac rehabilitation booklet and 8 weekly general patient education sessions, with a *stage-matched intervention group*; which included conventional care, 8 weekly exercise stage-matched sessions, and cardiac exercises aimed at improving physical activity and exercise (Zhu et al., 2014). The effects of this study yielded positive results for the stage-matched group. Improvement was noted for up to 6 months. However, the long-term effects of such an intervention are unclear, which poses a limitation to this intervention (Zhu et al., 2014).

MHealth (mobile health) can be recommended to have a positive impact on facilitating behaviour change for risk factors associated with NCDs a systematic review of the effects of MHealth was done

to assess the impact on diet adherence and physical inactivity as the risk factors to cardiovascular disease such as hypertension, coronary disease and heart failure (Thom et al., 2023). Another systematic review reported positive impact of MHealth in developing countries such as India and Hounduras, and recommended that more research is required to confidently conclude the significance of this impact (Stephani, Opoku, & Quentin, 2016).

Cognitive Behavioural Therapy is also considered a strategy to address NCDs, for example obesity (Dalle Grave, Sartirana, & Calugi, 2020). When comparing behaviour change therapy where the main goal is to see behaviour change in addressing obesity, cognitive behaviour therapy not only addresses behaviour modification but the cognitive aspects of that influence behaviour in order to achieve lasting behaviour changes (Dalle Grave et al., 2020).

Motivational interviewing (MI) is an approach to behaviour change described as a collaborative, goal-orientated style of communication that is patient-centred (Miller & Rollnick, 2013). MI is defined as "a clinical style for eliciting from patients their own good motivations for making behaviour changes in the interest of their health" (Rollnick, Miller, & Butler, 2008). MI consists of four guiding principles, to resist righting reflexes (to quickly point out what the patient is doing wrong and ask them to stop), to understand and explore patients' own motivations, to listen with empathy, and to empower the patient, encouraging hope and optimism (Rollnick et al., 2008). MI is not a behaviour change theory but is often used in conjunction with the transtheoretical model and social cognitive theory in studies (Miller & Rollnick, 2009).

Several factors may influence the lasting impact of behaviour change interventions. One reason for this may be that most patients will start the process of behaviour change based on internal motivation rather than external input (Carroll, Fiscella, Epstein, Sanders, & Williams, 2012). Considering this reason, 5A's approach to behaviour counselling may provide a strategy to have lasting effects on behaviour change (Sherson et al., 2014). The 5A's framework can be described as a "MI technique" to facilitate conversations that is designed according to the individual's needs (Welsh et al., 2022).The 5A's framework in behavioural counselling is gaining momentum as an all-purpose counselling model that can be used by providers to produce desired behavioural changes, including smoking cessation, dietary change, reducing alcohol consumption, and managing body weight. This allows for integration into consultation times with patients and takes approximately 10 minutes (Sherson et al., 2014).

The 5A's is an acronym for; **Assess** (Ask about, or assess, lifestyle behaviours on a routine basis, including physical activity, tobacco, alcohol, nutrition, healthy thinking and sleep on a routine basis); **Advise** (Give specific information about the benefits and goals of a healthy lifestyle and specific behaviours); **Agree** (Through a process of shared decision-making, collaboratively set realistic, personalized goals with the patient); **Assist** (Offer and/or refer to evidence-based interventions and resources, including self-management support); and **Arrange** (Specify a plan for follow-up). Originally, it was modelled as the 4A's (Ask, Advise, Assist, Arrange) by the National Cancer Institute to assist with smoking cessation. 'Agree' was eventually added as the fifth 'A' by the Canadian Task Force on Preventive Health Care to incorporate the shared vision of the patient (Whitlock, Orleans, Pender, & Allan, 2002). Shersona et al., (2014) reported that there are multiple variations of the 5A's model recommended for use in the primary care setting.

A pilot clinician intervention, which aimed to increase the use of 5A's in physical activity counselling, was assessed in 2016 in a low-income and ethnically diverse community in New York, USA. The study evaluated the results after 13 clinicians, who were individually recruited, received three hours of group training on 5A's and one individual session assessing their skills to execute on the 5A's framework (Carroll et al., 2016). Pre- and post-testing was performed, as well as one or two assessment points during the duration of the study for respective groups. Individual interviews were conducted with the clinicians post-intervention, and a six month follow-up was also conducted. Results showed that physical activity was discussed with only 37% of patients enrolled in the intervention throughout the points of assessment. With the exception of *Ask,* an increase in 5A's usage was reported from baseline to follow-up, however, only A*gree* was reported to have a significant result (Carroll et al., 2016).

In South Africa, the 5A's framework in behavioural counselling has been adapted as a means of decreasing NCD risk (Everett-Murphy et al., 2016). Malan et al. (2016) investigated the impact of an eight hour training in the 5A's framework amongst clinicians and their adherence to the framework established after six weeks (2016). The study specifically addresses the four main risk factors of NCDs in South Africa and was based in the Western Cape Metropolitan region, with 41 clinicians participated in the study, which included physicians, nurses, medical registrars servicing the public, and two general practitioners in private practice. The results indicated a significant improvement in the adherence of using 5A's in the short term, when comparing baseline to clinical practice at six weeks (Malan, Mash, & Everett-Murphy, 2016). A significant improvement in the implementation of

the 5A's framework was observed following eight hour training, and the analysis of 123 recordings of participants implementing the approach in clinical practice, i.e. MI adherence percentage, improved from 41.3% to 88.7% post-training, and at six weeks reported as 66.7% improvement (Malan et al., 2016). No results were reported beyond the six weeks,. Therefore, despite the significant impact of the training, it is still not known whether the training is sustainable or whether health professionals' will retain this knowledge long term.

Investigations regarding the the training programme described above in Malan et al. (2015) were also published (Malan, Mash, & Everett-Murphy, 2015b). Twelve in-depth interviews were conducted, enquiring about the eight hour training programme content and the experiences of implementing the 5A's. Verbal feedback was acquired before and after the training. There was a significant shift in primary care providers (PCP) from a "directing practitioner-centred style" to a "guiding patient-centred style" (Malan et al., 2015b). Thus, PCPs moved away from telling the patient what to do, and shifted to helping improve patients understanding of developing their own personal reasons for changing unhealthy behaviour. PCPs reported an increase in confidence to execute counseling and noted a change in the patients' response when using this approach. Despite the benefits expressed by PCPs, barriers were also reported. For instance, time constraints, language barriers, and lack of support from facilities, to name a few. PCPs further suggested the need to equip and train other health professionals such as community health workers (CHWs) and physiotherapists (PT) to deliver this intervention.

The search of literature for the use of the Scale of Staff Valence (SSV) developed by Wong et al (2020) in South Africa produced no results, while only one study conducted in Hong Kong was identified (Wong, Kwan, & Wong, 2023). The study noted that the impact of the use of the ICF on staff involved in adopting and implementing the framework in their service practices has been little studied. As a first attempt in the Asian context, the study aimed to examine the change in staff self-perceived valences under ICF-based practices and to explore if there were any socio-demographic characteristics, such as work experience, position, etc., that have a significant effect on those changes. The study concluded that the participants achieved significant positive changes in all valence domains after they had tried out the ICF-based practices for a year. However, only the years of experience in ICF-based services, rather than gender and age, had significant impact on the valences scores. The use of the SSV in this study would therefore provide a preliminary data on the use of the ICF framework in South Africa.

2.8 Involvement of Physiotherapists in PHC

PHC aims to provide access to health care services at a community level, and places value on services such as physiotherapy and occupational therapy (Narain & Mathye, 2023). With PHC as the vehicle of delivering National Health Insurance, intending to link accessibility and affordability of all health services to all South Africans, physiotherapy was not an essential service for pilot sites (Narain & Mathye, 2023). There are also challenges and limitations to providing access to rehabilitation services in South Africa (Narain & Mathye, 2023).

These challenges create barriers to providing access to physiotherapy on PHC level. Firstly, there is a shortage of physiotherapists in South Africa, as well as a discrepancy between the physiotherapists employed in the public vs private sector with most qualified physiotherapists serving the private sector (Narain & Mathye, 2023). Secondly, international research has produced evidence of the role of physiotherapists in the prevention and management of chronic conditions. However, in the public sector, more physiotherapists are employed at the secondary and tertiary levels of care, where the focus is on curative management rather than preventive care and promoting health (Narain & Mathye, 2023; Stewart & Haswell, 2013). When services are available at PHC, these are often at larger facilities than smaller clinics such as those in more rural settings (Wendimagegn & Bezuidenhout, 2019).

These experiences are not limited to South Africa but are also reported in other African countries such as Nigeria (Olaleye, Hamzat, & Owolabi, 2013). A study exploring the role of PTs in stroke management at a PHC level also found that the majority of physiotherapy services were located in more urban areas which created barriers to accessing these services amongst patients living on the outskirts of town or more rural areas, especially considering the cost of travel, affordability of physiotherapy services amongst those with low levels of education (Olaleye et al., 2013). The lack of access to secondary and primary preventative stroke management may increase the risk of developing secondary or tertiary disability and as previously mentioned, a further increased risk of NCDs (Olaleye et al., 2013; Richards et al., 2015).

Similar results were reported in Brazil. Despite the implementation of health policies speaking to the role of physiotherapists in PHC, one of the challenges is to overcome the “curative biomedical model” and move beyond just the rehabilitation space, and for services to also include health promotion and prevention activities (Bim et al., 2024). A barrier to this may be the lack of knowledge or

understanding of the role of physiotherapists in a PHC level facility. Other barriers also include infrastructure issues and limited financial resources (Bim et al., 2024).

A systematic review of 44 qualitative studies discussed the barriers, challenges, and benefits of rehabilitation services on a PHC level (ShahAli et al., 2023). The impact of providing rehabilitation services such as physiotherapy on a community level, with a reach closer to people's homes, will give access to health education programs. Giving access in this way can be considered a cost-effective way to promote health and reduce the risk of secondary complications related to chronic conditions which can result in hospitalisations (ShahAli et al., 2023). Most of these studies were conducted in high-income countries apart from SA. The review reported three challenges impacting the integration of rehabilitation services which include, a lack of knowledge of the role of physiotherapist, poor knowledge of general practitioners, and a lack of awareness of who can access physiotherapy services. Financial resources were also discussed as a significant factor which included a lack of human resources to service the population due to "undesirable financing" and finances for therapy equipment (ShahAli et al., 2023).

Despite these barriers, the facilitators of physiotherapy services at PHC level included collaboration and interprofessional teamwork in health care, effective communication, and growing patient education knowledge of physiotherapy. The review also made mention of the improving knowledge of other health professionals regarding physiotherapy services, resulting in the involvement of physiotherapists in policy development (ShahAli et al., 2023).

Considering the literature discussed in this review, the burden of NCDs globally and locally are significant to require action from multiple stakeholders. Several behaviour change strategies have been discussed as methods to address these NCDs and associated risk factors. Health professionals, such as RHPs, may also assist in addressing the NCDs epidemic and would require training to be effective in promoting health behaviour in this regard.

CHAPTER 3: METHODOLOGY

This chapter will describe the methodology used to answer the research questions:

1. Is MI when used for behaviour change in addressing NCDs in South Africa?
2. Are RHPs suitably placed to provide behaviour change counselling?
3. What is the experience of RHP in implementing 5A`s strategy?

3.1 Research design

A mixed methodology was used that included a scoping review, quantitative survey design, and a qualitative descriptive study.

3.2 Phase 1: Scoping Review

This scoping review followed the six-step framework of the Joanna Briggs Institute (JBI), along with the guidance of the Preferred Reporting Items for Systematic Reviews and Meta Analysis-Scoping (PRISMA-ScR) review checklist (Tricco et al., 2018). The aim of the scoping review was to explore the outcomes of existing research investigating the impact of MI in addressing NCDs in South Africa. Two reviewers reviewed the literature to agree on inclusion and exclusions. A further elaboration of the scoping review protocol is discussed in chapter 4.

3.3 Phase 2: Quantitative Cross-sectional Survey design

Calculated Sample size for the study

Literature suggests that to be conservative, it is standard practice to use 50% (0.5) as the event probability in sample size calculations since it represents the highest variability that can be expected in the population (https://www.relevantinsights.com/articles/sample-size/). The outcome of literature search on the use of MI by RHPs for behaviour change in addressing NCDs in South Africa suggests that this is a developing area of research. Therefore, the sample size for this study assumed that 50% of RHPs would know about the 5A`S, with a 95% confidence level, and a 5% error margin. The required sample size was 206 participants (MapleTech, 2024). It is acknowledged that the response rate was very low hence the results are inconclusive.

Participants

Sampling

Convenient two-stage sampling was used in this study. All RHPs employed by the EC Province DOH were eligible for the inclusion of this study. RHPs working in the private sector of the EC Province were also eligible. There were three sampling sectors from where participants were recruited into this study.

To recruit participants in the public sector, the director of rehabilitation services in the province was requested to share the information about the research with all employed RHPs. The information about the research was loaded on the Google drive which will be described under procedure. The researcher also contacted the managers of rehabilitation services employed in the province to inform their staff about the research.

Within the private sector the same invitation was sent by the researcher to the chairpersons via the RHP professional bodies in the province namely, South African Society of Physiotherapy, Occupational Therapy Association of South Africa and the South African Speech, Language and Hearing Association. Researcher was dependent on the chairperson of the respective professional organisations to disseminate the request for participation, as the Protection of Personal Information Act, prevented the sharing of personal information.

Procedure

Rehabilitations Health Professionals were recruited over a period of four months (15 July 2021-15 October 2021). Due to the poor responses, the researcher initiated a snowball-rolling process was initiated to attract more participants.

Information sheet (Appendix A) about the research and informed consent (Appendix B) for the participants were developed and uploaded to a Google drive:

(https://drive.google.com/drive/folders/1JRhY04SnAmU5cHHXK2T6uK4JlSTYupkq) .

The development of research instruments for the quantitative study.

There were two main objectives of this phase of the study namely 1) to describe the level of staff readiness of RHPs to implement the 5A's framework in their clinical setting in terms of capability,

opportunity and motivation, and 2) to provide training on the 5 A's framework to address the risk factors of NCDs.

For the first objective, the questionnaire administered was adapted from the Staff Scale of Valence (SSV) that was used to measure staff readiness in using the ICF in patient management (Michie et al., 2011; Wong et al., 2020). Examples of adaptions included: I feel competent to use the ICF in clinical practice was changed to I feel competent to use the 5A`s in patient consultations the use of descriptors which were ICF related to the use of the 5 A's (see appendix E).

There are three domains of measurements in the SSV namely *capability,* which is described as the individuals' understanding of and ability to implement the ICF*, opportunity,* which relates to participants' personal opportunity for development and competency in their work environment and lastly, *motivation,* which is considers individuals' beliefs and value in the efficacy of ICF in their case (Michie et al., 2011; Wong et al., 2020). Each response was rated using a 7-point Likert Scale ranging from Strongly Agree to Strongly Disagree which has been found to give a more accurate description of personal responses (Finstad, 2010). (For this study the values of the Likert Scale were given as 1– strongly disagree, 2- somewhat disagree, 3- disagree, 4- unsure, 5- agree, 6-somewhat agree, 7- strongly agree).

The wording was changed in this scale to allow to evaluate readiness related to behaviour counselling using 5A's. The SSV of 5A's approach also used a 7-point Likert Scale which has been found to provide a more accurate measure of participants' evaluations (Finstad, 2010). The adapted survey instrument was sent out to four RHPs and the supervisor to determine face validity. Participants were asked to comment on clarity of questions and ease of understanding. No changes were made to the instrument following the pilot test. The adapted instrument was therefore uploaded to the same Google drive as the informed consent.

RHPs were asked to use a RHPs logbook (see appendix F) to log and describe their implementation of the 5 A's in consultation with patients who they identified with NCD associated risk factors. This instrument was developed and uploaded to the same Google drive as the informed consent and SSV.

The second objective was to provide training on the 5 A's framework to address the risk factors of NCDs. For this the researcher developed a two-part webinar for the training of RHPs in the use of the 5 A's framework was developed. After the completion of the SSV questionnaire participants were

invited to view the webinar training on the 5A`S strategy. The webinar included an introduction to NCDs, the role RHPs can play in addressing the major behaviour risk factors, the and a step-by-step explanation of how to implement the 5 A's strategy during routine consultations. Participants were then asked to document their experiences implementing the 5A's strategy in their consultations using the RHPs logbook. The RHPs logbook reports on patient diagnosis, co-morbidities, risk factors for NCDs, whether they were able to determine the patients' stage of behaviour, which of the 5 A's constructs were used, and the patients' response to intervention. The RHP logbook entries were collected over a 4-week period (18 October 2021 to 18 November 2021).

questionnaire, two-part online seminar and the RHP logbook (see appendix G), the link to the drive was sent to the director of rehabilitation services, the managers of rehabilitation services and the chairpersons of professional associations. They were requested to send the link to the RHPs working with them. The director of rehabilitation services in the province loaded the link on the WhatsApp platform that was accessible to all RHPs working in the public sector. Similarly, the managers of rehabilitation services sent the link via emails to those working under them, and also uploaded the link on the WhatsApp platform that was accessible RHPs in the public sector. The chairpersons of the professional associations either emailed or sent the link to the Google drive to WhatsApp platforms where the members of the private sector would be registered.

Response was very slow, and reminders for participation were sent bi-weekly in addition to telephone calls. This slow response may be attributed to the challenge of around online recruitment processes (Wu, Zhao, & Fils-Aime, 2022). With all these efforts the targeted sample size was not achieved. The SSV questionnaire was closed after 4 months (15 July 2021-15 November 2021). At the end of the four months only 15 participants (5 OTs, 4 PTs, 3 STs, 1 Audiologist, 1 Occupational therapy technician, and 1 occupational therapy assistant) were had completed the questionnaire. Respondents completed the online questionnaire were requested to indicate their availability for Phase 3 of the study.

Management and analysis of data collected

The data captured by the adapted SSV-ICF was entered into Microsoft Excel spreadsheets and exported to IBM SPSS Statistics 27 for analysis. The results were presented graphically.

For each domain of the SSV, the overall individual scores were added, and the percentage score was determined. The median value of the percentage scores was determined. To calculate domain summary scores the value scores per category were added and a total sum identified. A percentage per domain was calculated using the sum of the scores/total sum of domain*100.Likert Scale data is considered ordinal and can be summarised using median or mode. Non-parametric tests were used to calculate the median per domain. Kruskal-Wallis tests were used to test for differences between domain scores and years of experience of participants (p= 0.05). The years of experience of participants was selected under the assumption of the researcher that participants who have served longer in the service would be better prepared to implement the 5 A's Framework based on their experience (Wong et al., 2023).

Ethical Considerations

Ethics approval was obtained from the Human Research Ethics Committee of University of Cape Town (HREC 292 2021) prior to the commencement of the study. The ethics approval letter is in appendix C.

Participants who responded to the invitation, completed the informed consent form before completing the questionnaire. Participants were assured of their anonymity. There was no risk or benefit associated with participation. The data collected was kept confidential in an encrypted file accessible only to the researcher. The data will be kept for a period of two year following the completion of the research and after which it will be destroyed.

3.4 Phase 3: Qualitative Descriptive design

Participants

Convenience sampling was used whereby all participants in Phase two were contacted via email and invited to participate in an online focus group discussion a week after the RHP logbook closed (19 November 2021). Six participants agreed to participate in the online focus group. At the beginning of the meeting participants were welcomed and thanked for joining. The purpose of the focus group was explained, and participants were informed that their participation was voluntary, that they could withdraw/leave without consequence. Participants were informed that there was no risk or direct benefit to their participation.

Procedure

The participants took part in an hour-long online focus group discussion on 19th November 2021 at 12h00 (during their official lunch break) on the Zoom platform. A research assistant helped to co-ordinate the logistics of the online platform which included managing the recording, keeping time, and taking notes.

A focus group question guide made up of two questions, was created. The questions were intended to provoke discussion.

1) What was your experience of using the 5A'S strategy following the training?
2) Do you think RHP should have a role in behavioural counselling?

Management and analysis

The Zoom platform produced an audio and video recording as well as a transcript (see appendix F) which was sent via email to Zoom account holder. The recordings and transcript were downloaded to a secure folder. The transcript was edited using the audio recording to correct any discrepancies by the researcher. Using NVivo 12 software the transcripts were analysed through the process of content analysis using codes, then later developed into themes and subthemes. Verbatim quotes from participants were used to demonstrate the emerging themes.

Trustworthiness

Trustworthiness of the data was established through credibility, dependability, confirmability, and transferability. The final transcript was shared with the participants for member checking. Supervisors read through the transcripts and agreed with the emerging themes (Denzin & Lincoln, 2011). Trustworthiness elements for this study is described as follows:

Credibility is described as building trust and rapport over time with participants (Ahmed, 2024). Some of the RHPs participants in the focus group were involved in referral pathways of the researcher when patients required other therapeutic interventions in the work setting.

Transformability is defined as thoroughly extracting and describing the research context, participants, and methods (Ahmed, 2024). Quotations used to elaborate on themes and categories were comprehensive such as including RHPs clinical setting and types of patients.

Dependability is described as the “methodical documentation” of the steps taken to allow for the study to be duplicated (Ahmed, 2024). The steps taken and process for recruitment and procedure which is thoroughly described in the methodology.

Confirmability “pertains to the impartiality and objectivity of the findings, guaranteeing that they remain unaffected by any biases or preferences of the researchers (Ahmed, 2024).” A review of the qualitative findings and analysis was done by the research supervisors.

Ethical Considerations

The participants were assured of their anonymity. They were asked not to discuss the other participants responses outside of the meeting. The focus group was managed with respect and consideration for each speaker. Each participant had an equal voice.

CHAPTER 4: SCOPING REVIEW

This chapter aims to discuss and report on the scoping review protocol use to review research articles reporting on the effectiveness and impact of motivational interviewing on NCDs in South Africa. The use of the Johanna Briggs Institute PRISMA protocol has been used, data was then extracted into a table and analysed.

4.1 Introduction

Behaviour change interventions is a form of health promotion used to address the behavioural risk factors of NCDs (Holden et al., 2015; Prochaska & Prochaska, 2011). A review of multiple behavioural risk factors interventions in primary care found that PHC clinicians have a vital role in behaviour change (Goldstein et al., 2004). Motivational Interviewing (MI) is described as a collaborative, goal-orientated style of communication that is patient-centred (Miller & Rollnick, 2013). MI is defined as "a clinical style for eliciting from patients their own good motivations for making behaviour changes in the interest of their health" (Rollnick et al., 2008). Few scoping reviews have been done regarding the outcomes of motivational interviewing done by health personnel for NCDs. In addition, no scoping reviews have been done within a South African context (PROSPERO, 7 December 2023). The steps proposed by the Joanna Briggs Institute (JBI) were used in the development of the scoping review.

4.2 Identifying the research question

The aim was to explore the outcomes of the implementation of motivational interviewing in addressing the NCDs, amongst health care personnel in South Africa. To achieve this aim, the review answered the following questions: (1) What are the outcomes and benefits of the implementation of MI for NCD`S in South Africa (2) Who are receiving MI for NCD`s; (3) What are the health conditions and risk factors being addressed using MI? 4) Who is most likely to be providing MI for NCD prevention?

4.3 Identifying relevant studies

Full-text primary research studies published in English within the last 10 years, from 1 January 2012 to 30 June 2022 were considered. This timeline is linked with goals set by the National Department of Health strategic plan for the prevention and control of NCDs 2013-2017 set for 2020. All methodologies were considered for inclusion such as RCT`s, cross-sectional surveys, observational designs, pre- and post-test designs, and qualitative designs. The Population, Concept, Context framework as recommended by JBI were used to inform the search strategy

Table 1: Population Concept Context

Population	Concept	Context
All ages, sex and races are included, individuals and groups	Motivational Interviewing for NCD`s done by health professionals	South Africa- community and clinical settings

4.4 Study selection

Initial search terms included: *motivational interviewing, effects, outcomes, impact, health professionals, health personnel, health care workers, and medical workers*. Using the JBI three-step search strategy (Peters et al., 2015), step one included a preliminary search of EBSCOHOST using the search terms *motivational interviewing, non-communicable diseases or NCDs and South Africa*. The limited search of EBSCOhost included analysing the title, abstract, and index words of identified articles to further refine the keywords and MeSH terms. Search terms included: *Population*: Health personnel OR allied health personnel OR allied health occupation OR physical therapist OR audiologists occupational therapy OR [MeSh] OR (health professionals OR healthcare professionals OR healthcare workers OR healthcare providers OR medical workers) OR physiotherapist occupational therapist OR speech therapist [Keywords]; AND (*Intervention*) motivational interviewing [Mesh] OR (motivational interviewing OR motivational intervention OR motivational interviewing techniques) [keywords]; AND (*Outcomes*) outcome assessment, health care OR health impact assessment [Mesh] OR patient outcome assessment [MeSH] outcomes or benefits or effects or impact or effectiveness [Keywords]. Non-communicable disease [MeSH] OR NCDs OR

noncommunicable diseases. The search strategy was developed in consultation with UCT Librarian to ensure that all possible MeSH terms and keywords were included.

Step two: Key words were searched on Scopus and PubMed. A complete search across all databases was conducted to identify and extract further literature.

S*tep three:* Additional studies were identified through the reference list of the studies selected for the review. Where protocols were identified from the search strategy, the full study was searched and included. Completed full-text articles were included of protocols extracted using the search strategy, if these studies met the timeline criteria. References of extracted articles were screened for related articles, and where the study met the inclusion criteria was included in the preliminary list.

4.5 Charting the data/searching for evidence

A data extraction sheet with the specific inclusion criteria was developed. A form was developed and piloted by reviewers to chart the results of each study. The form charts the specific characteristics that speak to objectives and questions of the scoping review (Peters et al., 2015). Two or three studies were analysed by each reviewer to pilot the form to determine that the extracted data answers the review questions. The forms were compared and discussed to ensure the form speaks specifically to review questions. Once the pilot data extraction was completed and review form was discussed, the reviewers continued to complete the review of all literature (Flow Chart 1).

A detailed flow chart outlines and describes the decision process surrounding the selection of journal articles (Flow Chart 1). The chart shows all results, number of duplicates removed, full-text articles eligible and those excluded, and final number of studies included (Peters et al., 2015). A narrative of results was also correlated to describe the key findings of the review.

4.6 Collating, summarizing, and reporting the results

The results were reported using the Preferred Reporting Items for Systematic Reviews and Meta Analysis-Scoping (PRISMA-ScR) review checklist.

1. NCDs investigated in the studies
2. Region where studies conducted
3. Methodology and methods of delivery of intervention
4. Training schedule for health professionals
5. Outcomes

Table 2: Scoping review charting

Study	Studies included	MI	Qualitative research		Study Protocol	Quantitative						SA based study	NCDs						Other conditions	Participants						
Author & year			focus group	interviews		RCT	Pre or post test	feasibility/pilot	quasi-experimental	mixed method	others		CVD	Diabetes	hypertension	obesity	lung conditions	other		Patients	Doctors	Nurses	RHPs	CHWs	HPO	Other
Botes et al., 2013	X	X	X									X		X											X	
Catley et al., 2020	x	X										X														
Catley et al., 2022	x	X				X						X	X	X		X										
Mash et al. 2014	x	X				X						X		X						X						
Dewing and Mathews, 2020		X										X														
Dewing et al., 2015		X										X														
Law et al., 2021		X	X								X	X							X	X						
Louwagie et al., 2014		X				X						X							X	X						
Mash et al. 2015												X														
Mash et al., 2012		X				X						X		X						X						
Mertens et al., 2014		X				X						X							X	X						

Study	Studies included	MI	Qualitative research		Study Protocol	Quantitative						SA based study	NCDs						Other conditions	Participants						
Author & year			focus group	interviews		RCT	Pre or post test	feasibility/pilot	quasi-experimental	mixed method	others		CVD	Diabetes	hypertension	obesity	lung conditions	other		Patients	Doctors	Nurses	RHPs	CHWs	HPO	Other
Myers et al., 2018		X			X							X														
Myers et al., 2019	X	X				X		X			X	X		X					X	X						
Naik, 2014										X		X							X	X						
Serfontein and Mash, 2014	X	X		X								X		X						X						
Sordsdahl et al., 2015a		X						X				X							X							
Sordsdahl et al., 2015b		X				X						X							X	X						
Tuthill et al., 2017		X				X		X				X							X	X						
Malan et al., 2015	X	X					X					X	X	X	X	X	X	X		X	X					
Van der Oes and Mash, 2013	X	X	X									X		X						X				X		

On the completion of our database search, 21 journal articles were identified as matching the inclusion criteria for the scoping review. Twenty articles were found using the search strategy across the databases and 2 were identified through other sources, i.e., references of articles retrieved from search strategy and sourcing full studies where protocol was retrieved. Five duplicate articles were removed. Eleven articles were excluded by title, and 2 were excluded by abstract. Nine full-text articles were reviewed, and 8 articles were included for the purpose of this review. The reasons for exclusion were as follows, 8 articles focused on communicable diseases such as HIV and TB, 1 study investigated breastfeeding, 4 articles were discussing future study protocols, and one was a chapter from a published book (Flow Chart 1).

NCDs investigated in studies

Seven of the eight studies investigated the impact of interventions on Diabetes Mellitus. One study investigating the impact of the same behaviour change intervention on both HIV and Diabetes. Two articles explored the same study looking into the impact of behaviour change intervention on obesity as a primary condition, and Diabetes and CVD as secondary conditions. The one article produced preliminary results followed by the publishing of the full study and another study explored NCDS as a whole (Catley et al., 2020; Catley et al., 2022).

Region where studies were conducted

Almost all studies took place in Cape Town, Western Cape Province; two studies were specified as being based in metro (Malan et al., 2016; Serfontein & Mash, 2014), except for one study based in George, Western Cape (van der Does & Mash, 2013).

Methodology and methods of delivery of intervention

Regarding methodology, one study used mixed methods, i.e. qualitative and quantitative (van der Does & Mash, 2013) which used questionnaires before and after intervention, individual interviews, and a focus group as part of the qualitative aspect. Furthermore, the qualitative data was retrieved from both the healthcare workers and patients who participated in this study. One of the qualitative studies was only a feasibility study. Five studies investigated outcomes with quantitative methodology, four studies used prescribed intervention programs, these included *Lifestyle Africa* (an

adapted programme to address obesity as a primary condition in under-resourced communities) (Catley et al., 2022) and *The ConversationMap* (included adapted group activities addressing myths and facts, graphics and physiology of diabetes) (Mash, Levitt, Steyn, Zwarenstein, & Rollnick, 2012; Mash et al., 2014). Both interventions were delivered by healthcare workers/officers. Two of these studies also include the published preliminary results (Catley et al., 2019; Mash et al., 2012). Malan et al (2016) used before and after testing method, where baseline testing of the healthcare workers' knowledge of behaviour change skills were assessed. Using recordings of healthcare workers implementing the 5A's to evaluate the changes in their behaviour change skills (2016). One study investigated the impact on a health promotion program in an urban Xhosa community in Cape Town using isiXhosa as the language of the intervention (Catley et al., 2022). Three studies used qualitative approaches exclusively, which were focus group interviews, an in-depth interview, and qualitative interviews respectively (Botes, Majikela-Dlangamandla, & Mash, 2013; Myers et al., 2019; Serfontein & Mash, 2014). Two other studies explored the impact of the intervention using only qualitative methods, the qualitative methods included in-depth interviews, focus groups, and individual interviews.

Training schedule for health professionals

All but one of the studies gave some description of the training that the health professionals received before delivery of the intervention (van der Does & Mash, 2013). Across these studies, most of the training required the health professional participants to attend either a 4- or 3-day training workshop, with 2 or more days of follow-up training sessions, with the exception Mash et al. requiring the participants to attend two 4-hour training sessions (Malan et al., 2016). Two studies reported on the evaluation of the training through the programme, for the duration of the study Myers et al. (2019) reported that each community health worker received weekly supervision to evaluate the execution of the health education content, whereas Mash et al. (2014) reported that each health promotion officer was evaluated at least twice during the research period. Six studies used a group intervention as the delivery method for the direct patient intervention arm of their studies and the other two were delivered as one-to-one interventions. These interventions were delivered by either healthcare workers, community health workers, or health promotion officers, nurse and doctors. Only two studies evaluated the training intervention of health professionals and the impact of the intervention on the patient (Myers et al., 2019) (van der Does & Mash, 2013).

Outcomes

Studies that investigated the effectiveness of training for CHWs or other clinicians reported on the benefits of being more equipped to deliver MI to patients, whether in a group context or individual counselling. One such study reported that Health Promotion Officers were confident in delivering the content, as they described the content as "relevant and understandable" despite the barrier of finding an appropriate space to implement the intervention (Botes et al., 2013). Myers et al. also reported positive outcomes, but CHWs requested further training and supervision for implementation, reporting that time constraints were a barrier when considering their other roles and responsibilities as CHWs in the community (2019). Reporting on the in-depth response of patients to MI, Serfontein and Mash (2014) found patients responding positively to counselling input and reported that content was effective; noting that there was an improvement in knowledge and understanding to address the "need for information" but also making mention of the difficulties with securing a private venue. Another study reported on the improvements of self-care activities amongst people with type two diabetes, and 7% decrease in smokers amongst patient participants (van der Does & Mash, 2013). Also, both the staff and patients expressed the benefits of the "enhanced social support," however barriers such as appropriate venues, buy-in from other staff, and difficulties building rapport with some patients were also reported.

Comparing preliminary results of *Lifestyle Africa* supported the feasibility of culturally adapting the Diabetes Prevention Programme for delivery by CHWs in under-resourced settings in LMIC (Catley et al., 2020). The complete study, which had the largest number of participants of the selected studies for this review, showed a reduction in both the primary (percentage of weight lost) and secondary outcomes (HbA1c, blood pressure, triglycerides, low-density lipoprotein (LDL), and cholesterol; however, only HbA1c results were considered significant) (Catley et al., 2022).

A pre- and post-test study, evaluating patient participants' adherence to lifestyle changes and the adoption of an MI-guided style to facilitate behaviour change, yielded positive results following 8-hours of training, noting improvements in clinicians' use of MI following compared to baseline testing (Malan et al., 2016).

Contrary to the positive results of the above-mentioned studies, Mash et al. found poor outcomes for the *ConversationMap* programme (Mash et al., 2014). They noted poor adherence to attendance of all sessions, almost 60% of participants allocated to the intervention group did not attend any

sessions, and of those who attended, the majority attended one or two sessions. There were no significant changes in the primary or secondary outcomes, except for a reduction in blood pressure in those who attended all four sessions. Compared to more highly trained professionals and well-resourced countries the positive effect of this intervention was not replicated.

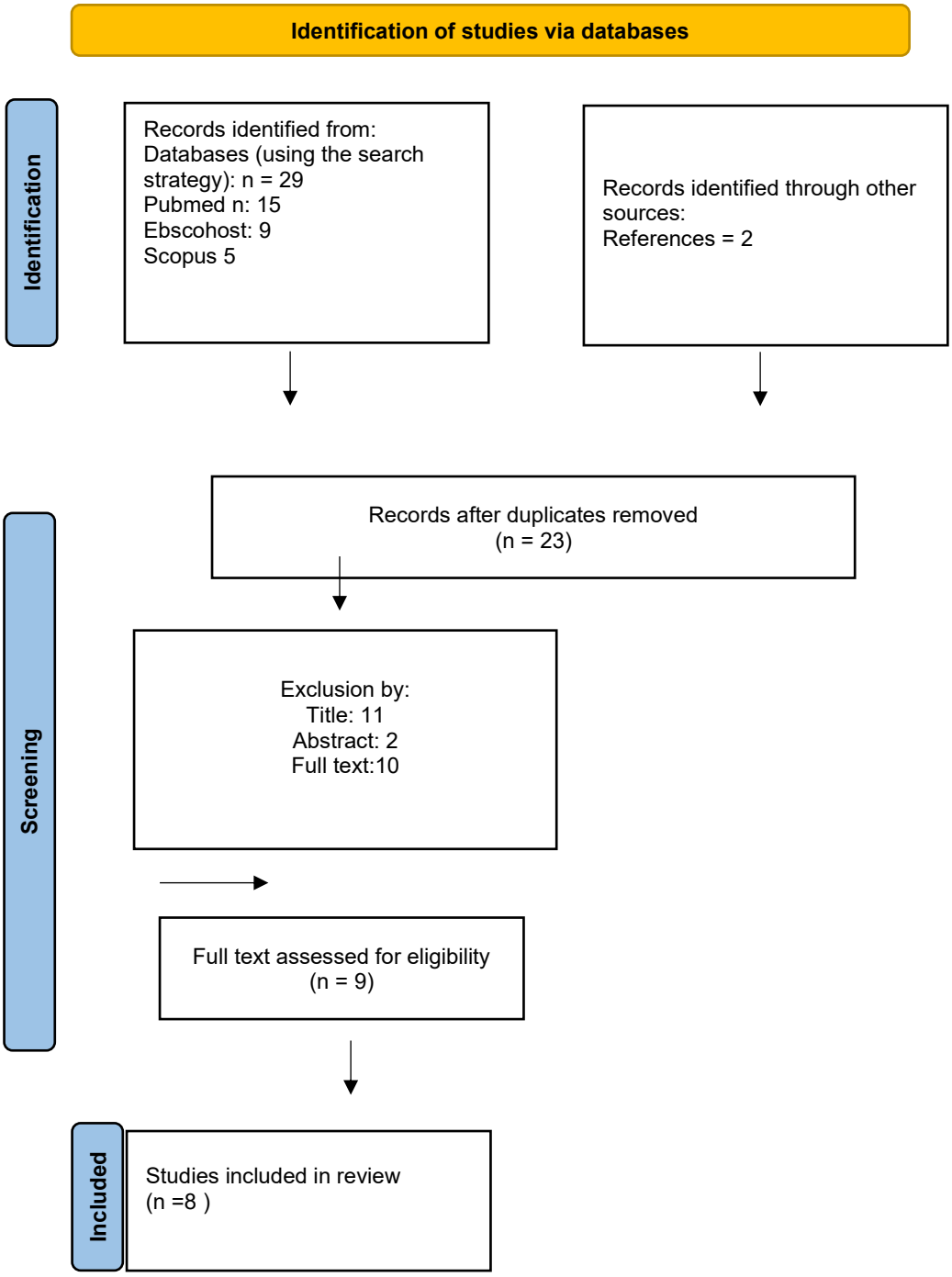
4.7 Conclusion of the scoping review

The results of this scoping review showed that motivational interviewing as a strategy for addressing NCDs is not commonly used across South Africa as all the studies sourced in this review were based in the Western Cape Province. Where NCDs are concerned the studies were focused mostly on addressing diabetes mellitus and associated risk factors, only one study addressed NCDs as a group of conditions. This means that the effectiveness of MI to address other NCDs such as cardiovascular disease, cancer or lung conditions is not known. Considering diabetes, the effectiveness of MI was inconclusive as the results of the studies in this review had varied results.

Some of the qualitative results reported positive outcomes in the patient responses, however the trademarked intervention ConversationMap reported poor outcomes of the intervention stating adherence to attendance of sessions as one of the challenges. Furthermore, when considering the varied training schedules and the varied results of these studies, it is not conclusive which training regime or schedule is most effective for health care professionals in South Africa. No studies included any rehabilitation health professionals.

The results of this scoping review reveal the different factors contributing to successful implementation of MI to address NCDs. The differences in training regimes for example 4-hour training vs 3–4-day training has an impact on how health professional participants execute MI as well as the confidence to delivery this intervention. Further research is recommended to investigate a comparison of training regimes as well as the inclusion of other health professionals such as RHPs. This review also highlights the lack of research across South Africa. The value of exploring the impact of MI on NCDs in other provinces may benefit the South African Health Department in development of MI programmes tailored to the needs and resource of each individual province.

Flow chart 1: Scr PRISMA



CHAPTER 5: RESULTS & FINDINGS

This chapter presents the results and findings of phases 2 and 3 of the study described in the Methodology chapter. This includes the results of the quantitative analysis extracted from the Scale of staff valence results and the RHPs logbooks, the qualitative analysis of the RHPs logbook and focus group discussions is also reported in this chapter

5.1 Quantitative Results

Participants

Fifteen RHPS in the EC Province from both public and private sector consented to participate in the study. Each rehabilitation profession was represented in the study, 5 OTs, 4 PTs, 3 STs, 1 Audiologist, 1 OTT, and 1 OTA. Most RHPs had more than 5 years of practice experience in their field.

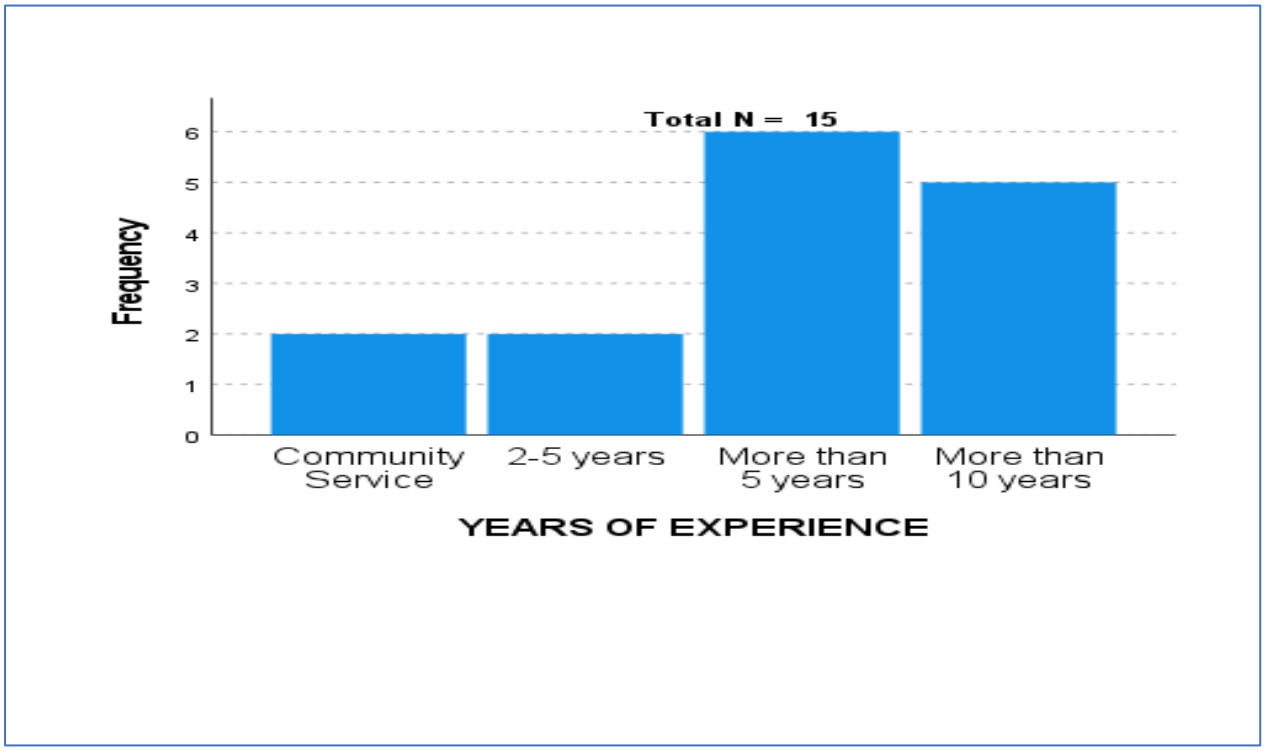


Figure 1: Years of Experience Across the sample N=15

Scale of Staff Valence for 5A's Approach

This scale was divided into 3 domains; capability, opportunity, and motivation, which specifically evaluated staff readiness. Agreement with statements is measured on a scale of 1= strongly disagree to 7= strongly agree. A higher score reflects a positive response.

Capability

Most participants agreed that they were capable of introducing the 5A`s (n=11), however, 8 were not familiar with the 5A`S approach. The average score was 28/35 (80%) with a standard deviation of 2.4.

Opportunity

Participants agreed that there were opportunities for the 5 A`s implementation (n=13), with 2 not having autonomy in the workplace or the competence to include patients/clients in the decision-making process. The average score was 66/77 (85.7%) with SD of 6.6.

Motivation

All participants (n=15) agreed on some level to being motivated to implement the 5A`s strategy. The average score for the motivation domain was 31/35 (88.6%) with SD of 2.2.

Percentages were calculated across the summary of responses per domain across the RHPs. The median for Capability was 80% with a range 66-94%, for Opportunity 85.7% with a range 65-97%, and Motivation 90.9% with a range 77-100%.

Valence scale domains across years of experience

All groups have a median capability percentage ranging from 80% to 84% (Figure 2). There is no statistical difference between years of experience and capability of RHPs to implement the 5 A's Framework (Chi-Square = 1,667 df = 3 p = 0,644).

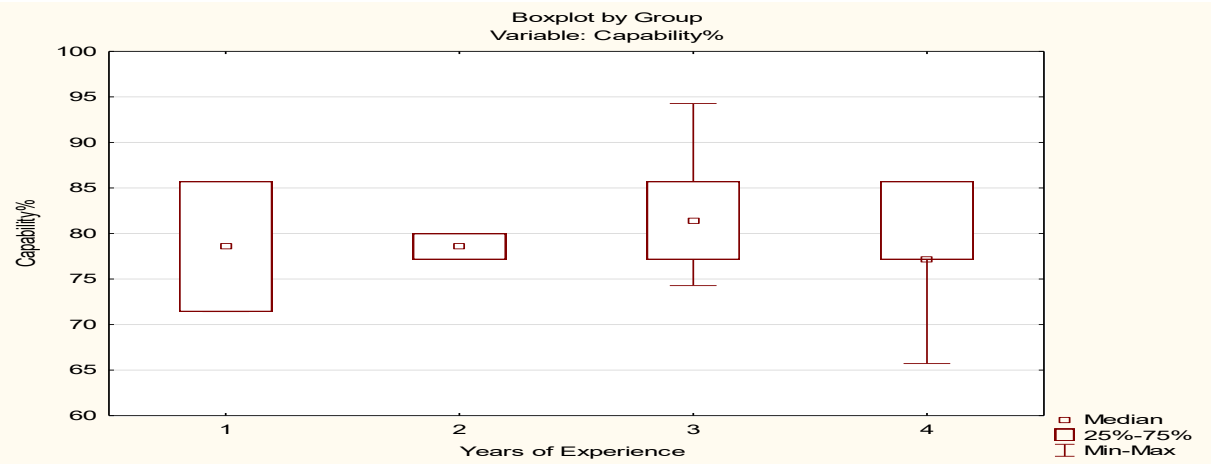


Figure 2: Capability

There was a statistical difference in Opportunity domain across the years of experience p< 0.05 (Figure 3). This may indicate that RHPs with more years of experience more likely see the opportunity to engage in health risk behaviour change counselling using the 5 A's Framework.

Figure 3: Opportunity

Chi-Square = 11,786 df = 3 p = 0,008

Figure 4: Motivation

Chi-Square = 4,821 df = 3 p = 0,185

The median scores for motivation did not indicate any significant difference across the years of experience and level of motivation amongst RHPs to implement 5 A's Framework (Figure 4).

RHPs in their community service year have less opportunity and motivation to implement the 5A`s strategy. Capability, Opportunity and Motivation seems to decrease among those with more than 10 years' experience.

RHPs Logbook of patients/clients seen

RHPs logged 25 online reports to record the 5A`S implementation. RHPs reported on categories including risk factors, comorbidities, length of consultation, and stage of behaviour change.

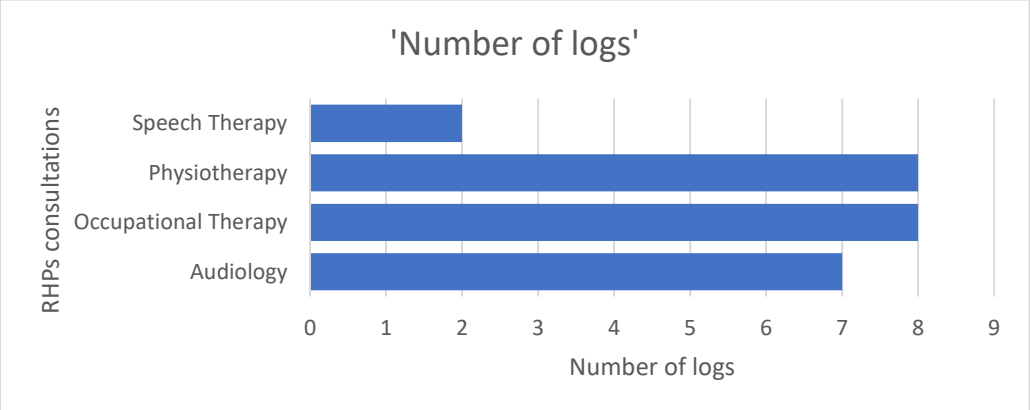


Figure 5: Number of rehabilitation health professional consultations

Table 3: Gender and Age

	Number	Range	Mean Age
Female	15	32-60	52.6(SD=10.35)
Male	10	60-82	60.1(SD=13.06)

Table 4: Patient Conditions

Reasons for attending therapeutic service	**Number**
Cardiopulmonary conditions	1
Neurological conditions,	7
Sensorineural hearing loss	7
Neuromuscular/orthopaedic conditions	6
Other	4

When reporting on risk factors twenty-two participants reported physical inactivity and 9 were reported having unhealthy diets making these the most common risk factors, followed by 8 participants reported as smokers and 3 reporting the harmful use of alcohol (Figure 5). Multiple risk factors were reported in 40% of patients/clients (n=10).

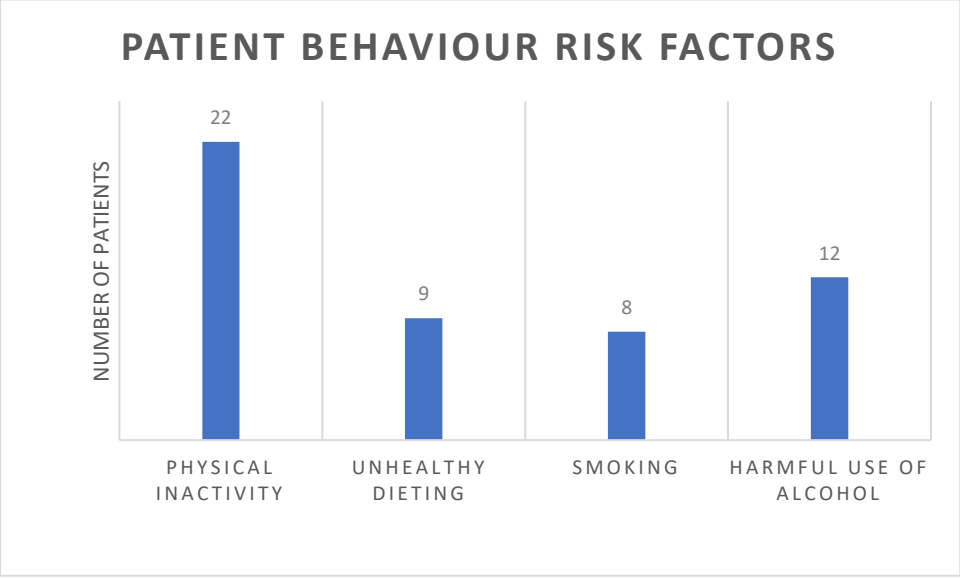


Figure 6: Behaviour Risk factors

Where comorbidities were reported for the 25 patients, the most prevalent were hypertension (68%), DM (48%) followed by heart disease at 28% (Figure 6). Two or more comorbidities were reported in 68% of patients/clients.

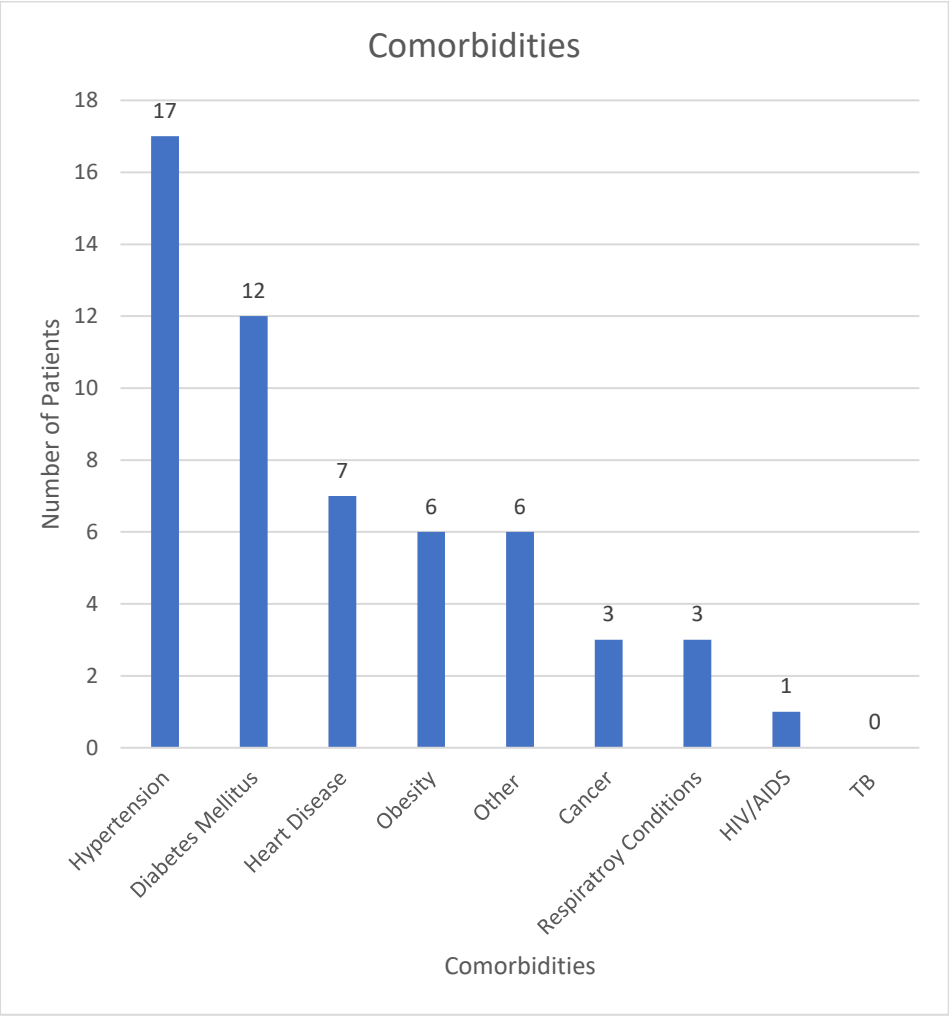


Figure 7: Co-morbidities

RHPs reported on the time spent with patients/clients that ranged from *less than 30min* to *60min.* Results showed that 48% of consultations lasted 60min, 32% lasted 45min, and 20% spent 30min or less in consultations (Figure 7). Where RHPs determined patient/client stage of behaviour change, 8 were in the preparation stage, 6 were in the pre-contemplation stage, 5 were in the contemplation stage, 5 in the action stage, and one in the maintenance stage.

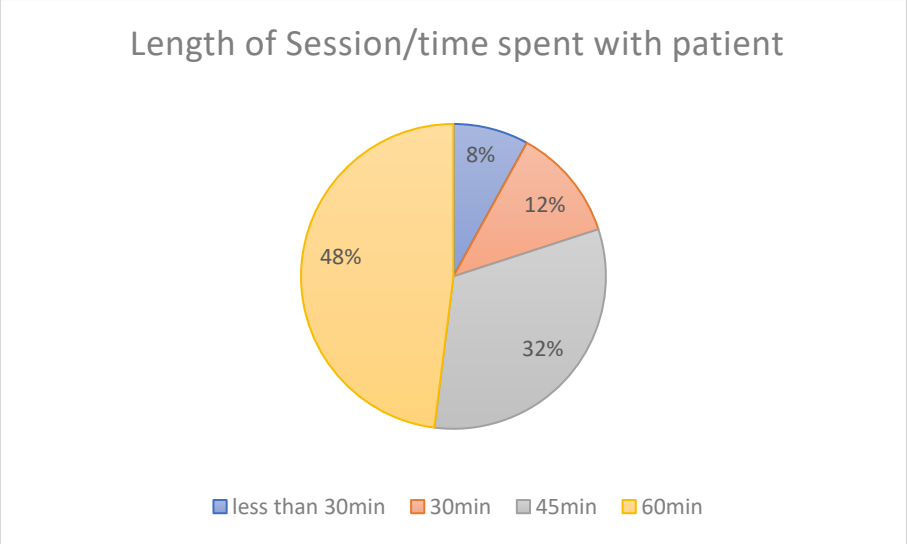


Figure 8: Time spent with patients in consultations

There was an intention to determine the experience and outcome of the training using a post-training survey however the procedure was not conclusive and therefore was not included in the quantitative findings.

5.2 Qualitative Results

Two themes emerged following the analysis of all two data sets (RHP logbook, focus group) pertaining to the experiences of the RHPs experiences in implementing the 5A's approach, namely 1) *quality of the 5A's* which discusses the impact of challenges and benefits of this framework as well as the impact of improved knowledge around behaviour change and their RHPs ability to execute the 5 A's, and 2) *impact of the clinical setting* describes the range of clinical settings, i.e. acute vs subacute vs outpatient settings, where RHPs practice in and the contact time available on these platforms to implement the 5A's.

THEME ONE: Quality of 5A's

Rehabilitation Health Professionals' knowledge and understanding of behaviour change and 5A's

Gaining knowledge and understanding regarding behaviour change proved beneficial in managing health risk behaviours. RHPs experienced a mind shift concerning their role in addressing NCDs and their associated risk factors. For some RHPs the impact of NCDs and risk factors were unknown before the training. The understanding and the implementation of behaviour change counselling for some spoke to the benefits of prevention of disability.

"…I do education with my patients; I think I will definitely amend my approach with the 5A's. We tend to talk about one aspect of someone's life, like smoking, and then we never bring it up again.." (PT1)

"…targeting behavioural change needed to not only treat our patients but prevent further disabling." (ST1)

"…I did not know (about) the 5A's framework to behavioural counselling before the webinar. I like the fact that it is patient-centred as each patient is different with their unique challenges. Will definitely put this framework to the test at work as I have so many patients with lifestyle diseases (NCD's)…" (OT1)

Gaining an awareness of the role of behaviour change amongst RHPs, using a strategy such as 5A's, and even growing in the knowledge and understanding of stages of behaviour change, were also

mentioned by RHPs. One RHP expressed their willingness to use the 5A's in light of their training, and other RHPs were willing to test this strategy because they care for many patients/clients with NCDs.

"I (PT2) was not aware of the stages (that) we can define where someone is in their behaviour-change journey. I do education with my patients; I think I will definitely amend my approach with the 5A's."

"…Didn't think we could use the 5A approach in any profession. I think it is a good approach to educate clients..." (OT1)

"…Will definitely put this framework to the test at work as I have so many patients with lifestyle diseases (NCD's)…" (OT2)

The focus group further elaborated on gaining knowledge and understanding of 5A's strategy, emphasising the value of naming a process to facilitate behaviour change. For example, ST2 shared that some of the constructs of the 5A's framework were already a part of their management, but to have a name and the steps to follow was valuable and they were able to determine direction and plan the road ahead for the patient.

"…what I personally liked about it (is) it's a lot of stuff that you already do, but now I could put a name to it and put a process to it. …it's actually part of a process and mapping (a plan), so it's some logical thinking … also (I can) to put a name to it, so that was valuable for me." (ST2)

"…practical, but methodical way of targeting behavioural change…" (ST2)

With considering the role of RHPs in health promotion and behaviour change counselling being revitalised, some RHPs were reminded to view patients/clients holistically, not just focusing on their current health condition. One RHP expressed that often when dealing with hearing loss one can get "tunnel vision", but there are other aspects of the person's well-being that may contribute to their health state. Another RHP expressed that in her clinical experience, patients/clients come with multiple pain concerns, and with the time constraints in consultations, the need to focus on the one thing or determine the main problem, time doesn't allow her to ask all the questions and view the

patients as a whole. With the refocus on health promotion, and aiding in behaviour change, the benefit of asking more specific questions kept a holistic view at the forefront.

"I feel sometimes you get such tunnel vision (when) just dealing with ears and hearing (as an audiologist) … it (the training) reminded me that we're dealing with a whole person, and not just (their) ears and hearing…" (AUDIO 2)

"…sometimes the person comes in, with a knee (problem), a back (problem) and shoulder (problem), an ear pain… we get so lost in what you need to do in that specific(condition)… we don't ask (more) questions…So(after training), you ask the real questions and actually see (that)there not something more, where as a person isn't a knee(patient) or is not a shoulder (patient)…" (PT 4)

Furthermore, gaining better understanding in behaviour counselling aided going back to the basics, managing patients/clients with a biopsychosocial model addressing all three aspects of their well-being, not just their condition.

"…to work with the (whole) person and all bio psychosocial (aspects of health), all three things again just to go back to the starting point (the fundamentals) …" (ST2)

Teamwork and collaboration

Collaborating with other members of the interdisciplinary team within the health care system was a topic that resonated with several RHPs, especially in the focus group. The benefits of working in teams was expressed by all four disciplines in the RHPs. A Speech Therapist working in an acute clinical setting shared how she relies significantly on the OT when managing patient care, especially when time constraints leave her with only enough time to complete an assessment.

"("Collaborate") …that's my favourite word in the whole wide world… because I can't survive without it. I find out more about my patients from my OT (colleagues) that works with me." (ST2)

While agreeing to the benefits of teamwork, a RHP spoke on the barriers around teamwork, particularly the financial implication on patients of seeing multiple health professionals, especially in the private sector. An audiologist, sharing first-hand experience where patients/clients express their

concern about the expense of hearing aids and batteries that need to be changed daily, noted that to then refer the patient to another RHP increases the financial burden on those patients/clients.

"*…I agree, especially being an audiologist very limited in what you can treat…also the financial abilities of the patient really play a role… they're already complaining about how much a diagnostic assessment is, and they need to pay it out of their pockets and now I want to refer them to a dietitian or somebody and it's just going to cost more money...*" *(AUDIO 1)*

Similarly, an OT also working in the private sector, mentioned the challenges with medical aids and limitations around the extent of the patient's benefits. These limitations affect the time spent with patients, and where continual management is necessary, the patient would need to pay it out of pocket or stop therapy.

"…Yes even with PMB (Prescribed Minimum Benefits) patients…you only get a certain amount of sessions (medical aid covers)." (OT1)

Despite the implication of finances, the same OT also balanced her statement by advocating for referring on when there are aspects of the patient's health that are out of their scope.

"…I feel very strongly about knowing when I'm not the best to be treating that (other conditions) so I might be able to give you a little bit of advice about diet… but I'm not a dietitian, I can't give you a diet plan…" (OT3)

ST2 further agreed on the importance of referring despite the implication of finances, linking appropriate referrals with prevention of further health complications.

"…Prevention is key, and I know we chatted about finances now, you know about, referring them on but (patients) keep on ending up in hospital. So, making a change may actually save them (prevent) in the long run, and (from) re-stroking; something to think about ..." (ST2)

The benefits of including the patients' family in the multidisciplinary team was also discussed. Involving them in the implementation of the 5A's to help improve their knowledge and therefore better care for patients with poor cognition or communications following discharge.

"It is useful knowledge and could be worth applying with family as well as future patients." (ST1)

"It was good to cover the topic, as it brought out other underlying emotions and more discussion on his relationship with his wife and she was also able to offload." (ST2)

"So, I think the patient's level of cognition really plays a big role in implementing the five A's, but there I think we need to get the families more involved…" (OT1)

Despite the benefit of involving families in the process, the COVID-19 pandemic did limit access to family members within a hospital setting. Usually, during visit hours, RHPs could educate and set goals with family members. Where visitors in hospitals have been prohibited, this time has been lost and most communication has been over the phone.

"…for me the difficult thing was the only time I ever see families is during visiting times, or on the day that they're being discharged… (usually)we organize a training session where we sit with them, and that(training) has been absent for the past year and a half (during COVID19 pandemic). I haven't seen families, so, everything's been over the phone and families are getting phone calls from everyone (other health professionals), they (family) are overwhelmed, so my simple home programme, can get lost in it all..." (ST2)

A discussion started in the focus group around sharing the load or responsibility and how the 5A's constructs could be used more effectively within an interdisciplinary team. With the emphasis on collaboration as stated earlier and having clear referral pathways, executing the 5A's can be a shared responsibility within the rehabilitation field and other health sectors. Including a psychologist in the team was mentioned by a RHP, not only because of their field of expertise in view of behaviour management and behaviour counselling, but also due to the length of their consultations provided; giving more time to address unhealthy behaviours such as smoking or the harmful use of alcohol.

"I didn't even think about (how) the whole acute (setting) versus in sub-acute (setting vs) outpatient (setting and) how much it affects the quality of the five a's and with one person versus the whole

team…" (PT6)

"And I sort of feel like now (with this discussion) if you only implement one of the five A's it's okay, because I felt like I have to implement all of that (5A's constructs) …" (PT6)

"…(yes) the psychologists (for) patients with especially depression…they struggle, a lot to change their habits and the psychologists can really assist, and they also spend lots of time with the patient. They have the time to kind of discuss some of these steps…" (OT2)

Benefits and Challenges

Understanding the stages of behaviour change, implementing the 5A's framework, and using it in consultation allows RHPs to monitor the process and progress of the patients throughout their health journey. This also allowed for RHPs to address the specific needs of patients and manage them holistically; such as using the 5A's framework constructs *agree* and *assist* to help the patient with decision making.

"…a person that's been having back ache for years and (then to) actually to work step by step with this person, actually to see his behaviour changing…he just flipped his behaviour (and)you just realized (he is) already in the preparation phase going to action. It was very nice to actually see that in a person as you walk the journey with him…" (PT6)

"Patient was appreciative of the holistic approach tailored to his needs. (The) information shared assisted patient's decision making." (PT3)

RHPs also reported the positive responses of their patients when implementing the 5A's constructs. These responses included patients' willingness to make the change and creating openness to share other aspects of their well-being.

"It was good to cover the topic, as it brought out other underlying emotions and more discussion on his relationship with his wife and she was also able to offload." (ST2)

" (The patient) didn't really make changes after first stroke, but this second stroke is much more severe and now he is aware that some things need to change. (He is) open to engage." (ST2)

"Patient is taking the information, and assessing in herself, if she will be able to make the small dietary changes." (PT)

" (Patient) she is ready to start making positive changes in her life." (AUDIO 1)

Several RHPs reported challenges related to specific "A" constructs, where some were much easier than others to implement. Many RHPs described "assess" as one that comes naturally, but others like "agree" and "arrange" were more difficult to use.

"For me (PT6), I found the first two (assess and advise) and the last two (assist and arrange) quite easy, as we were taught how to treat the person you assess, (and) you advise them exercises, …you arrange or follow ups…but the one that I found difficult was the "agree" part …to get those specific things into motion, or really where you can make a difference, I find that extremely difficult. I found that as a big challenge…" (PT6)

"…I (OT 1) also think that the "agree" part is the most difficult part, like to find the middle ground between what you want the patient to do and what the patient actually wants to do…, I also think the "arrange" part for me is difficult because I only see the patients as inpatients…" (OT1)

Similarly, AUDIO1 found "agree" challenging, but reported that "action" was difficult too, especially in her work context. As an audiologist, even though she does ask patients about the risk factors, moving a patient through the stages of behaviour change in light of hearing loss is difficult. However, she did relay that using these constructs within her field of expertise is effective.

"…the "action" part, that was difficult for me, and "agreeing" because …how do I relate this to my session (related to hearing loss) … it's very difficult because I ask these questions, but we don't really go into depth…" (AUDIO1)

Despite the challenges in the clinical setting, some RHPs expressed their concern around their lack of knowledge and understanding of risk factors and NCDs. Feelings that addressing these risk factors in-depth may be outside of their scope of practice and influences the level of engaging with risk factors or other medical conditions from the RHPs themselves.

"…I do feel like more training would be beneficial, …" (AUDIO 1)

AUDIO 1 further shared that in view of her scope of practice changing the topic to something that feels out of context for the patient was not easy,

"…because of the nature of my sessions because its more ear or hearing related, and I couldn't now really change the focus to smoking or something like that…" (AUDIO 1)

"… I(OT3) also felt like I needed more knowledge, especially with the smoking and the diet. Ja, because I'm not the expert, but I feel like with more (like and expert) with the physical activity, I can advise or assist the patient, a lot more…" (OT3)

A ST2 also shared her thoughts:
"…So, for me there, I know I can actively try and make a change, because I know the direct correlation between, for example, smoking and voice, which is my field, but obviously if I'm working with strokes (patients), there's so many other things, and I know diet and all of those…" (ST2)

While considering the clinical setting and scope of practice, one RHP works in a very narrow field within her profession and reported that within the medico-legal field the main objective is to do a comprehensive assessment and report on findings. Due to time constraints, this does make incorporating the other constructs difficult, and she is only able to make recommendations.

"…I'm in the medico-legal field (and) struggle with time to educate clients. (I) Do make recommendations in reports but client do not even see the report unless asked for… I can recommend treatment and refer but yeah, as if I only have time for 'assess'…" (OT2)

RHPs expressed challenges around some of the 5A's constructs being harder to execute than others. This depended on the clinical setting of RHPs and also the nature of expertise, where some RHPs

were working in a specialist field within their profession. The degree of difficulty was different for each RHPs with a consensus of only one or two 5A's constructs resulting in challenges.

"The first two (assess and advise) and the last one (arrange) was easy because I am seeing them (patient) again face to face, and then to gauge where they are, but then the "action" part that was difficult for me …how do I relate this to my session." (AUDIO1)

"… one (5A's construct) that I found difficult was the "agree" …because you can (only) take a person so far …you can take a donkey to the water you can't make it drink that type of thing so…" (PT6)

"...then I also think the "arrange" part for me is difficult, because I only see the patients as inpatients …so is we try to have a very good follow up with our patients, but then they go to a different therapist (when being discharged) so whatever I've done with the patient won't necessarily always carry over into outpatients (therapy)..." (OT3)

The nature of the patient's health condition also posed a challenge in implementing the 5A's framework and bringing about changes to unhealthy behaviour that may have led to hospitalisation. Some patients, especially in the acute setting, were medically unstable or unable to converse with the therapist due to a speech or language pathology. Other patients also had poor cognition as a result of a traumatic head injury.

"…(the) majority of the patients that I see are medically unstable or in complete shock, because they are in acute phase…" (ST2)

"…I think, from my side, the biggest challenge for me is the patient's low level of cognition, so I work with patients TBIs (Traumatic Brain Injuries) and strokes so their cognition is so severely affected they don't even have the insight into what has happened to them …" (OT3)

Motivation

The level of motivation of the patient significantly affected the quality of 5A's. The contributing factors to motivation were related to the health and well-being of the patient and the impact of

finances. The stage of behaviour change was also a factor where someone in the pre-contemplation phases would be less willing to change behaviour compared to someone in a contemplation phase.

RHPs, who logged individual experiences during consultations using the 5A's framework, reported that a good level of motivation had a positive impact on a patient's willingness to change; where some patients were more motivated to change their behaviour and move to the next stage of behaviour change, and some were actively making decisions to adopt healthier habits.

"…Patient was very motivated to start making a change…" (PT1)

"Patient is very compliant with treatment. Patient was willing to make a change from day one…" (PT1)

"Patient is willing and motivated to make a change after being bedridden for 2 months. Unhealthy dieting and eating regime will change as patient feel stronger and more mobile…" (PT1)

"She is aware of all the risks of not being active and motivated to keep training and healthier lifestyle a chance to improve quality of life..." (PT2)

"Open to engage." (ST1)

"Patient is taking the information, and assessing in herself if she will be able to make the small dietary changes." (PT3)

With some patients the nature of their condition impacted their level of motivation, but still yielded a somewhat positive response.

"(The patient) didn't really make changes after first stroke, but this second stroke is much more severe and now he is aware that some things need to change." (ST1)

"Patient is willing as much as she know she is a catastrophizer and any type of pain will create immobility to protect her back. She wants to attempt keeping her mobility throughout regardless of pain." (PT3)

"Patient has recently been diagnosed with cancer. She is still quite shocked with the news. I did not want to overstep and talk about hypertension, when she received this news a few weeks ago…" (AUDIO1)

"…a person that's been having back ache for years (and) actually to work step-by-step with this person, to see his behaviour changing where today he told me like…I don't think it's ever going to come right, (and say:) but you are aware of the problem, and you are starting to make a change and he just flipped his behaviour…" (PT2)

A lack of motivation including being in denial about their unhealthy behaviours, and the negative long-term effects on their well-being, meant some patients remained in the first stage of behaviour change (pre-contemplation). For one patient more support and guidance were necessary to motivate change, and for another, the length of the process to change behaviour contributed to low levels of motivation.

"*It is too hard to start to make a difference in quality of life if it is going to take long. Respect the advice and realize the need but (I) need more motivation." (PT3)*

"… she (patient) has a very negative mindset. It was difficult to get her to agree to set realistic goals. For now, we only spoke about the effect of a positive and healthy mindset on your general well-being." (AUDIO1)

"She (patient) is aware that changes in general lifestyle must be made, but (I)do not have the energy or commitment to follow through with the choice to exercise." (PT5)

"The patient is in denial about his lifestyle and daily habits." (AUDIO1)

"The patient is not focused on improving his daily life." (AUDIO1)

"He (patient) is not going to change his smoking or eating patterns." (OT3)

"Patient is lonely but willing to change if someone is assisting and guiding her in right direction." (PT2)

"Need someone to do it for to see changes to get more motivated to change chronic pain." (PT3)

Final comments and recommendations with regard to behaviour change counselling amongst RHPs were discussed. These included; the recommendation of more training, specifically around areas outside of the scope of practice such as dieting, introducing more case studies, and ongoing discussions and focus groups with other RHPs to gain more understanding and perspective within an interdisciplinary team.

"…I think that in a setting like this (focus group), where you're talking to other therapists you do tend to learn a lot more from other people, so I think you know, even if it is a zoom training or I think that I feel like I would pay more attention than sitting on my own listening and you're watching a video where I can hear and learn from other people in the experiences, yeah." (OT2)

"…More case studies …" (ST1)

"…I also felt like I needed more knowledge, especially with the smoking and the diet, ja, because I'm not the expert (in smoking management)…" (OT3)

THEME TWO: Impact of clinical setting

The nature of the clinical setting was discussed as a key factor amongst RHPs in executing the 5A's constructs. The RHPs who participated in the focus group discussed the impact of treating patients in acute in-hospital versus outpatient. The setting was linked to the time spent with patients in the specific settings. For example, within a hospital context, RHPs had shorter time frames to treat and manage patients while also having to focus on the reason for admission not behavioural risk factors. In this case, the main focus was "*assessing"* the patient and prescribing further treatment or managing the specific condition.

Time factor/ patient contact

In comparison, an outpatient, where having sufficient time meant building relationships and journeying with them over time, RHPs reported finding that patients were more open to elaborate on their deeper concerns.

"…we (outpatient RHPs) get to spend about 45 minutes to an hour with them, so we have the time to actually sit down and assess you know where you are, what are the problems, and I feel (with) that relationship that we build with them, they are much more likely to tell us things that are, that are wrong, or that they are concerned about, or would like to change…" (PT6)

"…we are the people that spending time with them… and ask the most questions and actually have(taken) an active interest in their life when we do our assessments during our therapy, so they tend to trust us more, tend to share more with us, so I think walking the road with them…" (ST2)

RHPs also shared how the patient benefited from daily therapeutic input at a subacute facility versus an acute setting where one goes on a long-term journey with the patient; observing the behaviour changes, using the other constructs of 5A's not just stopping with assessment.

"And he (patient) just said the benefits that he got from the treating therapist, I mean, like you say you walk a road with them…" (OT3)

"…It was very nice to actually see that you walk the journey with him, as I see less acute people, (working with outpatients) and more going with (through) those stages…" (PT6)

"…like the person I just saw before this to today; I've gotten him in this past three weeks to get to the preparation phase and it's lekker to see that . A person that's been having backache for years and years on end…work step by step with this person actually to see his behaviour changing…" (PT6)

"…I'm very grateful for the environment that I work in… where a person will lie down, and you can still chat for 45 minutes to an hour, where it's I think much easier…" (PT6)

Recognising the link between time constraints and teamwork, as discussed previously, the benefit of using the time to set goals and refer patients to the next level of care, for example from an acute setting to a subacute setting, could help save time for the new RHPs managing the patients' rehabilitation.

"…there's a lot of ongoing goal setting and that just helps the next therapist or whoever, because we're all a team, if we can give this information it just helps the next one to not start at the beginning again… save that bit of time, because we all crushed the time so…teamwork makes the dream work definitely." (ST2)

Field of expertise

The nature of a patient's condition and the field of expertise within a clinical setting coupled with time constraints and patient load contributes to the execution 5A's. As stated previously, having a singular focus or "tunnel vision," in the case of an audiologist whose main focus is hearing loss or an OT in the medico-legal field, incorporating all 5A's constructs can be difficult, despite significant time spent with the patient.

"…I also want to say the "assess" I can do…I can recommend treatment and refer but yeah (it's) as if I only have time for assess…the other four "a's" I'm actually not getting time for…" (ST2)

"… it was difficult to get them to change their behaviour in any way, and because of the nature of my sessions because its more ear hearing related …" (AUDIO1)

"For me, as an audiologist, I feel sometimes you get so tunnel, such tunnel vision just dealing with ears and hearing, and we don't really; our scope is quite, it's not narrow but it's just ears and hearing." (AUDIO1)

"…so, it (5A's) didn't work for me because I'm doing assessment for medico-legal field so there is no therapy happening. So yeah, I couldn't get to any of those (5A's constructs) …(within) the medico-legal field, the assessment is the most important thing, and the report writing so treatment doesn't happen, but we do the recommendations in the report." (OT2)

Compared to an acute setting, or even subacute setting, there are also difficulties for the outpatient therapist, as one OT expressed, in relation to the clinical context; as well as the link to patients staying motivated following a long-term stay in a subacute setting.

"I am at the opposite end of that again, where I will see a patient after they've been at the rehab setting for six weeks where, they are a lot more motivated (in sub-acute setting) because everyone around them is in the same situation as them so it's very easy…" (OT3)

This same OT also commented on the role of RHPs in behaviour change and the value of 45-minute consultations in her context, compared to general practitioners and giving the opportunity for patients to answer more questions as well as time to share and facilitate the patient through the stages of behaviour change implementing the 5A's framework.

"…I mean just thinking of going to a GP it's a 15-minute consult… they can only address the thing that you are there for…we get to spend about 45 minutes to an hour with them, so we have the time to actually sit down and assess… I feel that relationship that we build with them, they are much more likely to tell us things that are, that are wrong, or that they are concerned about…" (OT3)

Contrary to this experience in an outpatient setting, one PT in the focus group recognised the ease of implementing behaviour change in her context because of time, but also the nature of her field, in addressing less acute conditions where patients are more medically stable.

"I'm very grateful for the environment that I work in and listen to all of you guys, because obviously (there is) huge difference, which I didn't even think about this (at) all, the whole acute versus in hospital outpatient how much it affects the quality of the 5A's…" (PT6)

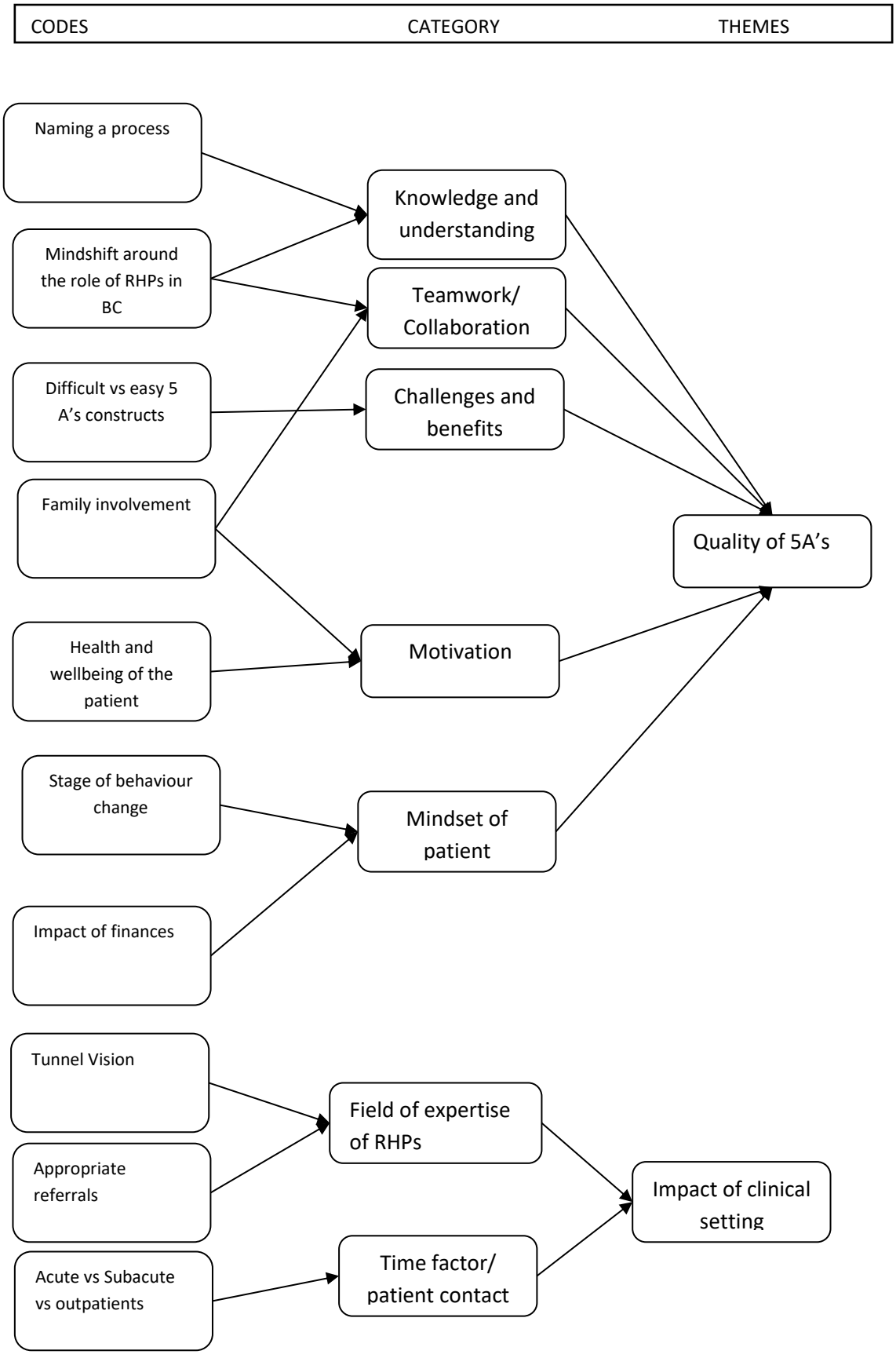


Figure 9: Flow Chart for themes

CHAPTER 6: DISCUSSION AND CONCLUSION

This chapter includes further discussion of the qualitative and quantitative results reported in Chapter 5, and notes the conclusion of the overall research as well as its limitations and future recommendations.

6.1 Discussion

The research aimed to explore the routine use of the 5A'S strategy in patient consultation in the Eastern Cape Province. The discussion will include the outcome of the scoping review, the training and implementation of the 5A'S strategy, and the experience of health professionals.

Our scoping review showed that very few studies had been conducted in the South African context investigating the impact of MI in addressing NCDs. It is hard to then speak to the generalisation of the effectiveness of MI in South Africa due to the low number of studies investigating the effects of this intervention specifically addressing the NCDs and associated risk factors. Where RCTs are considered the "gold standard" for evaluating health study outcomes, only two studies in our scoping review were conducted using an RCT design to investigate the effectiveness in this regard (Catley et al., 2022; Mash et al., 2014). Both studies used trademarked interventions used elsewhere and adapted it for a South African context. One such intervention, the *ConversationMap,* was previously conducted by highly trained health professionals in a high-income country, compared to our LMIC context where the intervention was delivered by community health workers; which may have an impact on the outcomes of this intervention (Mash et al., 2012; Mash et al., 2014).

Furthermore, most of these studies addressed diabetes within a particular health context within the Western Cape Province, with only one study focused on NCDs as a whole, and another study only addressed the impact on CVD as a secondary outcome for the MI intervention (Catley et al., 2022; Malan et al., 2016). This limits the positive outcomes for MI for addressing NCDs as a whole, especially considering that deaths related to CVD are more prevalent globally and locally (WHO, 2018). No studies leaned heavily on addressing specific behavioural risk factors directly linked to NCDs. It is important to note that none of these studies were based outside the Western Cape Province, which makes inferring the positive or negative outcomes across South Africa difficult. This lack of evidence i.e., the quantity of published studies, might also indicate the poor effectiveness of MI for NCD management based on our scoping review findings. Another conclusion could be that this may

highlight that NCDs are being overshadowed by other health concerns such as HIV/AIDs, TB and more recently COVID-19 (Mayosi et al., 2009). This is especially a concern when 51% of premature deaths in SA are caused by NCDs (WHO, 2018). Our scoping review also revealed that gaining knowledge and understanding in this field was considered "viable and effective" as well as "relevant and understandable" amongst health professionals (Botes et al., 2013). These responses are similar to some of the qualitative findings in this study.

The qualitative findings showed that RHPs may have a significant role to play in behaviour change counselling, specifically related to the risk factors of NCDs with appropriate training. One RHP shared that the training programme produced a "mind-shift" to intervene and address these risk factors, the rest of the group shared in the perspective shift of their role in behaviour change.

There were several factors discussed that spoke to the benefits and the challenges around the implementation of 5A's, along with the training. Our findings were similar to those reported by other studies exploring the impact of training and how it specifically improved confidence in delivering behaviour change counselling, knowledge and understanding. Another similarity in our findings was the barriers such as time constraints linked to the clinical setting, where counselling was implemented (Malan et al., 2015b; Myers et al., 2019).

For the RHPs in our focus group, the training was a refresher, once again moving away from the biomedical approach to health care, as one RHP described having a bend towards "tunnel vision" in her field of expertise. This "tunnel vision" can keep one stuck, focusing more on the problem at hand, as another RHP described how easy it is to "get so lost" in a patient's main problem. The training highlighted the need for a holistic view of the patient, where all aspects of health are considered; thereby adopting a bio-psycho-social approach to caring for patients. Factoring in MI guiding style approach, the patient joins the health care team, to help determine the way forward, hence a more patient-centred approach to addressing their health concern. Gaining awareness of the 5A's framework led RHPS to believe in the benefits of such an approach. One RHP highlighted naming the step-by-step process was helpful for implementing behaviour change counselling. These results are similar to that of the experiences of health promotion officers in a South Africa-based study who reflected on the benefits of being equipped in counselling and improved communication skills to better implement 5A's (Botes et al., 2013).

However, further into the discussion, these benefits were considered more obtainable in specific clinical settings. The clinical setting of practice is directly linked to the impact or effectiveness of such an approach. Despite improved knowledge of the burden on the risk factors and associated NCDs, our focus group gave reasons why not all clinical settings are ideal for executing the 5A's. One challenge faced in the acute hospital setting was the lack of extra contact time with patients to implement behaviour counselling such as 5A's. The RHPs working in hospital agreed that patients treated in an acute setting where acquiring a stable medical state will take priority over chronic conditions and behaviour risk factors. One RHP based in an acute setting expressed that most of her contact time is spent *assessing* their condition, this is specifically due to the turnover rate in acute settings, where the priority is first establishing a stable medical condition rather than finding ways to get the patient to stop smoking. These findings suggest that time is a significant factor for engaging in behaviour counselling such 5A's. Similarly, a study investigating the experience of community health care workers referred to the burden of other work responsibilities and its influence on the execution of behaviour change counselling, despite the clinical setting managing outpatients at a PHC level (Myers et al., 2019).

Compared to RHPs working in a sub-acute or outpatient setting, where time is not a barrier and having extended time with patients is the norm, the implementation of 5A's is easier. In light of the 5A's framework requiring approximately 10 minutes for delivery of the intervention, RHPs in the sub-acute and outpatient setting have sufficient time to address these risk factors in consultations (Sherson et al., 2014). This further suggests the suitability of RHPs and their role in behaviour change, in comparison to the other health professionals such as physicians who spend 6-15 minutes with patients, where often the reason for their visit is for an acute health condition (Leung et al., 2021). Even nurses on a PHC level may spend on average 7 minutes with their patients, leaving even less time to execute behaviour change counselling (Egbujie et al., 2018). This was confirmed by our RHPs in our focus group discussion, adding that spending more time with patients (one mentioned 45 minutes) makes building rapport is easier, *"they (the patients) tend to trust us more,"* resulting in the patient sometimes sharing information they would not easily share with other health professionals. This would suggest that RHPs in specific clinical settings, i.e. sub-acute and outpatient settings, could be the best suited amongst RHPs to deliver behaviour change counselling. The limited time spent with patients in these facilities and more pressing concerns such as acute conditions, leaves little time for doctors and nurses to be as effective during consultations, giving further evidence to RHPs

being suitable fellow health professionals to aid in behaviour change counselling (Malan et al., 2015b).

It is obvious that compared to the literature in which most of the training schedules were longer than the hour-long online training programme, could deem the training in this study to be inadequate to prepare RHPs to deliver the 5A's intervention in clinical practice. There was a general sense amongst participants in the focus group of the need for more training around the 5A's constructs especially as some of the A's were reported to be more difficult to execute than others, for example "assist" and "agree." While the other A's were considered part of normal clinical practice amongst health professionals, like "ask" and "advise." No examples were given during the online training to elaborate on the individual 5A's constructs to allow for better recall and reference to influence the effectiveness of implementation. The need for more training was also found in two studies other studies, where one study included two four-hour sessions and another study included weekly supervision, yet participants still reported on the need for more training (Malan et al., 2015b; Myers et al., 2019).

One RHP, an audiologist, also suggested that more training is needed to equip RHPs whose field of expertise is narrow as they felt their knowledge base was inadequate to take the conversation further to initiate behaviour change counselling. Despite asking the questions about behaviour risk factors, she also felt that some topics were out of her scope of practice, especially considering that she only manages conditions related to ears or hearing loss. Another RHP, an OT, expressed their need for more knowledge regarding some of the risk factors, particularly referencing smoking, and healthy dieting, using the phrase "I am not the expert," in these areas. This highlights the challenge of RHPs balancing their active role in behaviour change counselling and crossing over into the role of psychologists and counsellors.

With only 15 participants it is hard to infer the exact impact of this specific training, however, RHPs gained awareness around the global, and local, impact of NCDs. One RHP reported in the post-training survey how NCDs and associated risk factors were not on their radar, even more so the impact on a patient's present and future well-being. This may be considered a positive outcome of 5A's framework amongst RHPs. Even reports on patient responses had positive feedback such as increased motivation to change, an openness to engage in ongoing conversations about their health risk behaviour and even allowing for a safe space to be created for patients to be vulnerable about

the burden of their health concerns. Based on one RHP logbook entry, it would be safe to say the training sparked a conversation around NCDs and even provoked patients to participate more in their health journey; possibly improving their self-efficacy.

The focus group did, however, initiate a conversation around the possibility of collaborating to implement the 5A's. Despite a brief discussion, a question was asked; whether the completion of the 5A's constructs remains solely the responsibility of a single profession or if the continuity of this approach would have more success should the constructs of the 5A's be shared? For example, a patient who has suffered a stroke may require therapy from an OT, ST and PT, as well as medical follow-ups with doctors and monitoring by nurses. This would suggest that all these health professionals carry the responsibility of 5A's constructs during their individual consultations and provide feedback in a central space for example the patient clinic book. Whether this feasible in some health contexts i.e., private, or public sectors would require further investigation to explore the possibility especially as the this may require more resources and time to result in positive outcomes.

The quantitative aspect of this study was too a small sample size to attribute a positive impact to MI with 5A's framework. The expressed experiences of RHPs may suggest that they have a part to play in behaviour change to address NCDs. The limited literature could suggest that the role of RHPs in behaviour change counselling, to this degree, may not have been previously defined, encouraged, or emphasised. The results of our study brought to light a more significant role that RHPs could play in this field including the benefits of preventing and managing patients with risk factors and reducing the risk of disability, not only managing the complications or outcomes related to NCDs, such as stroke or amputation.

Our results also reported time spent with patients, which supports this suggestion as most of the RHPs participants (92%) spent more than 30 minutes with patients (Figure 7). Despite the lower number of participants in this study, these results are supported by other studies discussing time spent with patients (Kaur, English, & Hillier, 2013). In most therapeutic contexts, RHPs often require multiple sessions to achieve their set goals, hence giving more time to build rapport with patients, gain their trust and follow through with the journey of behaviour change. PHC level in the public sector has been determined as a suitable setting for behaviour change counselling, such as 5A's.

While our scoping review revealed poor outcomes for the quantitative study designs like RCTs, other studies investigating the experiences of health professionals delivering such interventions were also evaluated, this also included discussions around training/equipping. These studies, using focus groups, individual in-depth interviews, and qualitative interviews, evaluated these experiences a on deeper level. The majority of the studies uncovered health professionals' positive experiences regarding the training and equipping sessions, as well as their engagements with implementing MI. Even in studies where the patient responses to MI showed no significant changes or lasting changes, health professionals responded with optimistic feedback. This study also supports the positive outcomes, based on feedback directly following the training and 6 weeks later in the focus group.

Confidence in the execution of the MI intervention was a positive theme that developed from the qualitative interviews delivered by community health workers (Myers et al., 2019). This may be linked to the importance of staff readiness, where two of the three domains namely: capability and motivation can be linked to levels of confidence to deliver interventions for behaviour change using MI (Wong et al., 2016). Considering the average score under the capability and motivation domains; with scores of 28/35 (80%) and 31/35(91%) respectively, prior to 5A's training, where the higher the score was the more positive, the response may add to the evidence that the effectiveness of MI in the form of 5As, specifically in rehabilitation context, may be based on staff readiness linked to confidence. Statements of the SSV, adapted for this study, that speak to this link include:

"I think I am well suited to talk about behaviour change with my patients/clients."

"I believe that the implementation of a behaviour change strategy can help us to become better equipped to encourage autonomy and self-efficacy in rehabilitation patients."

"The implementation of a behaviour change strategy can/may be improvement over the current method of addressing the risk factors of NCDs in rehabilitation patients."

These statements' responses were mostly ranked from "somewhat agree" and higher by RHPs participants in this study, further adding to the evidence of this link between confidence and staff readiness. This may further suggest that improving staff readiness in this case through training and equipping in this field may produce more positive outcomes for MI interventions in the South Africa context. The qualitative comments from the participants after the review of the logbooks give the impression of improvements in the domains of capability, opportunity, and motivation. However, it was

only the years of experience of the participants that was significantly related ($p<0.05$) to the domain of opportunity. This is similar to the study of Wong et al. (2023).

In our scoping review Myers et al. (2019) suggested follow-up training to ensure implementation of MI in the long run. When considering health professionals' training needs for 5 A's and MI it is unclear how much training is considered sufficient based on our findings especially considering the varying training schedules found throughout our scoping review. Training schedules ranged from 8-hours to 4-days over several weeks. One study, which investigated the impact on CHWs training, reported on the need for further training, despite a 3-day training schedule and weekly supervision for the duration of the study (Myers et al., 2019). In comparison to the current study, similar feedback was reported regarding future training needs, as highlighted by the participants after only receiving one-hour of training. This varying training schedule makes it difficult to determine how much training is required to determine MI efficacy. With the exclusion of communicable diseases such as HIV and TB in this review (n=7), it is difficult to conclude the effectiveness as a whole in the South Africa context.

The start of this conversation may not only allow RHPs to start exploring their role in behaviour counselling, but for some patients, it may be what is needed to be propelled out of the pre-contemplation stage described in the transtheoretical model.

6.2 Conclusion

Motivational interviewing and the 5A's can be considered a feasible approach to addressing health risk behaviours related to NCDs in South Africa. RHPs in this study placed an emphasis on the value and benefits of training and equipping for behaviour change strategies to implement in their consultations. However, barriers and challenges do exist, such as the limited patient contact time and the stage of behaviour change of the patient, each influencing the effectiveness of this approach, especially in an acute setting. RHPs practicing in a subacute or outpatient setting are better suited to implement such an approach considering their contact time, allowing them to better build rapport with patients.

The findings of this study also conclude that RHPs, such as physiotherapists, can play a significant role in promoting healthy behaviour and facilitate patient self-efficacy. Improving the knowledge and understanding of their role amongst fellow health professionals could spread the load in health promotion, especially in the field of NCDS.

It is also necessary to note the limitations of this study, despite having representees across all four RHPs, the sample size recruited in comparison with the population size of RHPs in the EC province is considered to be small and impacts the inferences made across professions, and the province. It is also important to note that of the six RHPs who volunteered for the focus group, though the participants represented different levels of care, all 6 participants were practicing in private sector. Therefore, the results reflect only a partial description of RHPs in the public sector, based on an RHP's logbook, and do not include an RHPs in-depth experience.

Further recommendations for future study interventions include a long-term follow-up study on the impact of 5A's training amongst RHPs in South Africa. Targeting RHPs in a more feasible clinical context, such as subacute or outpatient facilities, could influence the impact of the intervention. Recruitment for this study was for all RHPs, across both public and private sectors, of all levels of care, however, some context made applying the 5A's constructs easier. Taking these factors into account, further studies may yield more promising results regarding the impact of the 5A's. One of the limitations to this study is the response rate for participants was very low hence the results are inconclusive and not inferable to the wide population of RHPs in Eastern Cape.

In conclusion, 5 A's framework derived from motivational interviewing may be an effective way to facilitate behaviour change and promote healthy behaviour. Considering the contact time spent with patients together with the positive experiences amongst the participants, RHPs may be well suited to implement a behaviour strategy such as 5 A's with more adequate and appropriate training, while collaborating with other health professionals.

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RHPS log book

Please log your experience of implementing the 5A's approach followin your consultation. 3-5min

1. Therapeutic service patient attended

Mark only one oval.

- ◯ Audiologist
- ◯ Occupational Therapy
- ◯ Physiotherapy
- ◯ Speech and Language Therapist

2. Diagnosis

_____

3. Age

_____

4. Gender

Mark only one oval.

- ◯ Female
- ◯ Male
- ◯ Prefer not to say
- ◯ Other: _____

5. Comorbidities

Tick all that apply.

- [ ] Heart disease
- [ ] Diabetes Mellitus
- [ ] Hypertension
- [ ] Obesity
- [ ] Cancer
- [ ] Respiratory condition
- [ ] TB
- [ ] HIV/AIDS
- [ ] Option 10
- [ ] Other: _____

6. Length of session

Mark only one oval.

- ◯ less the 30min
- ◯ 30min
- ◯ 45min
- ◯ 60min

7. Patient Behavioural Risk Factors

Tick all that apply.

- [ ] Smoking
- [ ] Physical inactiviy
- [ ] Harmful use of Alcohol
- [ ] Unhealth dieting

8. Select a stage of behaviour change

Mark only one oval.

- ◯ Precontemplation (no intention to start or consider changing behaviour in next 6 months)
- ◯ Contemplation (being aware that a problem exists, thinking about making a change)
- ◯ Preparation (starting to make the change but not consistent)
- ◯ Action (actively and successfully making the change)
- ◯ Maintenance (the change in behaviour being successfully maintained after 6months)

9. Which constructs of 5 A's did you use

Tick all that apply.

- ☐ Assess (Ask about or assess lifestyle behaviours on a routine basis, including physical activity, tobacco, alcohol, nutrition, healthy thinking and sleep on a routine basis);
- ☐ Advise (Give specific information about the benefits and goals of a healthy lifestyle and specific behaviours);
- ☐ Agree (Through a process of shared decision-making, collaboratively set realistic, personalized goals with the patient); This use to be 4 A’s before adding AGREE
- ☐ Assist (Offer and/or refer to evidence-based interventions and resources, including self-management support); and
- ☐ Arrange (Specify a plan for follow-up) .

10. Comment on patient response

Google Forms

Apppendix A

Consent Form for participation in Health Promotion Intervention

Participation in this study is part of a Post-Graduate Master's Degree in Physiotherapy: A prospective study of rehabilitation professionals' experiences and beliefs of 5A's approach to the risk factors for Non-communicable Diseases (NCDs).

Name of Researcher: Gillion Vearey (Student number: VRYGIL002)
University of Cape Town

* Indicates required question

Information Sheet

Thank you for considering to participate in this study intervention. The study proposed below has been received ethical approval from the University of Cape Town Human Research Ethics Committee. The Eastern Cape Department of Health has granted permission for the study to take place in primary health care facilities in Nelson Mandela Bay.
The UCT Faculty of Health Science Human Research Committee can be contacted on 021 406 6998 in case any participants have any questions regarding their rights and welfare as research subjects on the study. Reference number for ethical approval:

The World Health Organisation has found that non-communicable diseases (NCDs) (such as heart disease, diabetes, cancers) are the leading course of death in the world. CVD is also the biggest cause of premature death, which is death that occurs before the age of 70 years. NCDs can also cause other complications such as stroke or heart attack which may lead to disability.

NCDs is known as a chronic disease of lifestyle. This means that certain behaviours can cause NCDs. The main behaviours that put someone at risk for acquiring NCDs are:

- Smoking
- Hypertension (High Blood Pressure)
- Physical inactivity
- Unhealthy diet
- Harmful use of alcohol

Many Research studies have found that if you change these risk behaviours you can reduce the risk of NCDs.

The study forms part of a master's degree in Physiotherapy of Gillion Vearey.
A prospective study exploring the experiences of rehabilitation therapists in the implementation of the 5 A's approach to behaviour counselling in addressing the risk factors in patients with NCDs.
You can contact Gillion Vearey at 0726018039 or email gillion.vearey@circularhealth.co.za

A review of multiple behavioural risk factors (RFs) Interventions in primary care stated that primary health care clinicians (PHC) have a vital role in behaviour change of the top four major RFs. Researchers furthermore state, PHC clinicians form part of long-term care of patients with chronic conditions, with these patients attending PHC facilities regularly and thereby have the potential of multiple opportunities to engage with patients and influence behaviour.

It is the contention of the researcher that rehabilitation clinicians are better suited to provide behaviour change counselling in consultation. The average time spent with patients attending rehabilitation can often be up to 45min. Rehabilitation clinician has more time to build rapport and trust over periods of weeks, months and even years. Rehabilitation clinicians have more time to close the divide between clinicians and patients. With these clinicians based at primary health care facilities, they are able to implement behaviour change strategies at a level of care which has been referred to as the frontline for addressing RFs for NCDs.

Rehabilitation clinicians such as physiotherapists and occupational therapists have a role in both curative and preventative interventions and may have a significant role to play in health promotion. Here is what to expect:

1. Once online informed consent is acquired you will be asked to complete an adapted Scale of Staff Valence of 5A's Approach Survey online your work and behaviour change counselling experience.

2.You are then invited to watch the TWO part training on NCDs, behaviour change and 5A`s strategy for behaviour modification inpatient consultations specifically to address the risk factors of NCDs. The first video is an introduction video(approx 18 min) the second focuses on behaviour change(approx 35min). Participation in the training will be available until 15 October 2021

3. Complete the post survey

4. Use the RHPs online Logbook document experience following consultations (3-5min) for 2-3weeks. approximately 20-25 logs per therapist would benefit the study outcomes.

5. You may be selected to participate in a small focus group to discuss your experience.
Two weeks after the training, you will be asked to participate in a focus group to explore your experience of 5A's training and how you experienced implementing the 5A's behaviour change strategy.
The focus group will take place on Zoom or Microsoft Teams platform at a convenient time which will be determined by the rehabilitation manager or department head. The focus group will take two hours with other RHPs, questions that will facilitate discussion about your experience of the 5 A's training as well as how you experience implementing the 5A's approach in your consultations. A recording of the focus group session which will be transcribed and used for data analysis.

Participation in this study is voluntary. If at any point you would wish not to continue in the intervention you will be allowed to exit the study at any time. Please note no reimbursement for participation will be offered.
The benefits of the study will include improvement in the skills of RHPs in health promotion and facilitate behaviour change. This study may advocate for future research in the role of RHPs in health promotion and behaviour change.

Confidentiality regarding your demographic and work experience will be added to a secure folder which is password encrypted and stored on flash drive. However, privacy and confidentiality regarding information shared during the focus group cannot be guaranteed as the researcher has no way to ensure that other participants will disclose discussions outside the research setting.

Each participant will be entered into LUCKY DRAW for a Back conture cushion and K-Tape strapping or R500 Takealot voucher

1. 1. I confirm that I have read and understood the information sheet the above study. I have had the opportunity to consider the information, ask questions, and have had these answered satisfactorily. *

   Mark only one oval.

   ◯ Yes, I do

2. 2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical care or legal rights being affected. *

   Mark only one oval.

   ◯ Yes, I do

3. Full Name

   _____

4. Date

   _____

   Example: 7 January 2019

5. Email address

   _____

6. I understand that relevant sections of my medical notes and data collected during the study, may be looked at by individuals from the University of Cape Town, this includes, researcher, research assistants, research supervisor as well as evaluators of thesis, where it is relevant to my taking part in this research. *

Mark only one oval.

- ◯ Yes, I do

7. I understand that 2 weeks after the workshop I am agreeing to participate in a focus group should I be chosen. I give consent to a video recording of the focus group that will be transcribed and used for data analysis. *

Mark only one oval.

- ◯ Yes, I give consent to video recording

8.

Mark only one oval.

- ◯ Option 1

9. I agree to take part in the above study. *

Mark only one oval.

- ◯ Yes, I do

Appendix C

UNIVERSITY OF CAPE TOWN
Faculty of Health Sciences
Human Research Ethics Committee

Room G50- Old Main Building
Groote Schuur Hospital
Observatory 7925
Telephone [021] 406 6492
Email: hrec-submissions@uct.ac.za
Website: www.health.uct.ac.za/fhs/research/humanethics/forms

17 June 2021

HREC REF: 292/2021

A/Prof S Maart
Department of Health & Rehab Sciences
F-45 OMB
Email: soraya.maart@uct.ac.za
Student: Vrygill002@myuct.ac.za

Dear A/Prof Maart

PROJECT TITLE: A PROSPECTIVE STUDY EXPLORING THE EXPERIENCES OF REHABILITATION THERAPISTS IN THE IMPLEMENTATION OF THE 5 A'S APPROACH TO BEHAVIOUR CHANGE-MSC CANDIDATE-MISS GILLION VEAREY)

Thank you for submitting your study to the Faculty of Health Sciences Human Research Ethics Committee (HREC) for review.

It is a pleasure to inform you that the HREC has **formally approved** the above-mentioned study, subject to approval from the head of HR.

This approval is subject to strict adherence to the HREC recommendations regarding research involving human participants during COVID -19, dated 17 March 2020 & 06 July 2020.

Approval is granted for one year until the 30 June 2022.

Please submit a progress form, using the standardised Annual Report Form if the study continues beyond the approval period. Please submit a Standard Closure form if the study is completed within the approval period.
(Forms can be found on our website: www.health.uct.ac.za/fhs/research/humanethics/forms)

The HREC acknowledge that the student: Miss Gillion Vearey will also be involved in this study.

Please quote the HREC REF 292/2021 in all your correspondence.

Please note that the ongoing ethical conduct of the study remains the responsibility of the principal investigator.

Please note that for all studies approved by the HREC, the principal investigator **must** obtain appropriate institutional approval, where necessary, before the research may occur.

Yours sincerely

PROFESSOR M BLOCKMAN
CHAIRPERSON, FACULTY OF HEALTH SCIENCES HUMAN RESEARCH ETHICS COMMITTEE
Federal Wide Assurance Number: FWA00001637.
Institutional Review Board (IRB) number: IRB00001938
NHREC-registration number: REC-210208-007

This serves to confirm that the University of Cape Town Human Research Ethics Committee complies to the Ethics Standards for Clinical Research with a new drug in patients, based on the Medical Research Council (MRC-SA), Food and Drug Administration (FDA-USA), International Council for Harmonisation of Technical Requirements for Pharmaceuticals for Human Use: Good Clinical Practice (ICH GCP), South African Good Clinical Practice Guidelines (DoH 2006), based on the Association of the British Pharmaceutical Industry Guidelines (ABPI), and Declaration of Helsinki (2013) guidelines. The Human Research Ethics Committee granting this approval is in compliance with the ICH Harmonised Tripartite Guidelines E6: Note for Guidance on Good Clinical Practice (CPMP/ICH/135/95) and FDA Code Federal Regulation Part 50, 56 and 312.

Table 1. Items developed of the SSV-ICF.

Domains Items

Capability (Perceived Capability)

It is easy to explain what is classified in the ICF.
It is easy to explain what the purpose of the ICF is.
It is easy to explain the term “activities” as it is defined in the ICF.
It is easy to explain the term “participation” as it is defined in the ICF.
I am confident about applying the ICF in my job.
I am self-assured about my capabilities to implement ICF-related activities.
I have mastered the necessary skills to launch the ICF.

Opportunity (Perceived Personal Valence)
I have the chance to do something that makes use of my abilities.
I have opportunities for advancement.
I have autonomy in my job.
I am doing the right things.
I feel accomplished in my job.
I am confident about setting clear objectives for my job.
I feel prestige from what I am doing in my job.
I work deliberately with the goals of a service plan/rehabilitation plan/ support plan.
I understand there are many ways to participate and contribute in my job.
I am competent in regard to involving service users and their relatives in discussing and making decisions concerning the service plan/rehabilitation plan/support plan.
I feel competent in regard to communicating my contributions to service users and their relatives.
I feel competent in regard to my role and function in the service unit/ interdisciplinary team.
I feel competent in regard to collaborating with multi-disciplinary team members.
I feel competent in regard to communicating my professional contributions to the service unit/interdisciplinary team.

Motivation (Perceived Meaning)
I believe that the implementation of the ICF can better respond to the diversified needs of service users.
I believe that the implementation of the ICF allows service users to gain more spaces and opportunities to enjoy self-determined community lives.
The implementation of the ICF can help to enhance service users’ quality of life.
I believe that the implementation of the ICF can help us to become better equipped to meet our customers’ needs.
The implementation of the ICF is an improvement over the organization’s current practices.
The implementation of the ICF can help us to build on the positive attributes of the organization.

Appendix D

The scale on Staff Valence for 5 A's Approach

This survey measures the aspects of capability, opportunity, and motivation of delivering behaviour change constructs to address the risk factors of NCDs.
Only complete this form once you have completed the consent process
This survey will take 5-8 minutes.

* Indicates required question

1. Select your Profession *

Mark only one oval.

- ◯ Audiologist
- ◯ Occupational Therapist
- ◯ Occupational Therapy Assistant
- ◯ Occupational Therapy Technician
- ◯ Physiotherapist
- ◯ Physiotherapy Assistant
- ◯ Speech Therapist

2. Work Experience *

Mark only one oval.

- ◯ Community Service
- ◯ Post Community service
- ◯ 2-5 years
- ◯ More than 5 years
- ◯ More than 10 years

Capability

Choose the best answer to either to agree or disagree with the statements below.

3. I fully understand the term "behaviour change" *

Mark only one oval.

- Strongly Agree
- Agree
- Somewhat Agree
- Neither Agree or disagree
- Somewhat Disagree
- Disagree
- Strongly Disagree

4. I am familiar with using the 5A's strategy for behaviour change *

Mark only one oval.

- Strongly Agree
- Agree
- Somewhat Agree
- Neither Agree or disagree
- Somewhat Disagree
- Disagree
- Strongly Disagree

5. I think it is important to use a strategy to encourage behaviour change with my patients/clients *

Mark only one oval.

- Strongly Agree
- Agree
- Somewhat Agree
- Neither Agree or disagree
- Somewhat Disagree
- Disagree
- Strongly Disagree

6. I think I am well suited to talk about behaviour change with my patients/clients. *

Mark only one oval.

- Strongly Agree
- Agree
- Somewhat Agree
- Neither Agree or disagree
- Somewhat Disagree
- Disagree
- Strongly Disagree

7. I regularly talk to my patients/clients about changing unhealthy habits such as smoking, lack of exercise and/or poor dieting. *

Mark only one oval.

- Strongly Agree
- Agree
- Somewhat Agree
- Neither Agree or disagree
- Somewhat Disagree
- Disagree
- Strongly Disagree

Opportunity

Choose the best answer to either to agree or disagree with the statements below.

8. I have the opportunity to make use of my professional skills in my work environment *

Mark only one oval.

- Strongly Agree
- Agree
- Somewhat Agree
- Neither Agree or disagree
- Somewhat Disagree
- Disagree
- Strongly Disagree

9. I have opportunities for advancement in my current position. *

Mark only one oval.

- Strongly Agree
- Agree
- Somewhat Agree
- Neither Agree or disagree
- Somewhat Disagree
- Disagree
- Strongly Disagree

10. I have autonomy in my job. *

Mark only one oval.

- Strongly Agree
- Agree
- Somewhat Agree
- Neither Agree or disagree
- Somewhat Disagree
- Disagree
- Strongly Disagree

11. I feel accomplished in my job. *

Mark only one oval.

- Strongly Agree
- Agree
- Somewhat Agree
- Neither Agree or disagree
- Somewhat Disagree
- Disagree
- Strongly Disagree

12. I feel prestige from what I am doing in my job. *

Mark only one oval.

- Strongly Agree
- Agree
- Somewhat Agree
- Neither Agree or disagree
- Somewhat Disagree
- Disagree
- Strongly Disagree

13. In my profession I work deliberately with the goals of improving quality of life. *

Mark only one oval.

- Strongly Agree
- Agree
- Somewhat Agree
- Neither Agree or disagree
- Somewhat Disagree
- Disagree
- Strongly Disagree

14. I understand there are many ways to participate and contribute to my job. *

Mark only one oval.

- Strongly Agree
- Agree
- Somewhat Agree
- Neither Agree or disagree
- Somewhat Disagree
- Disagree
- Strongly Disagree

15. I am competent in involving patients/clients and their relatives in discussing and making decisions concerning the rehabilitation/support plan. *

Mark only one oval.

- Strongly Agree
- Agree
- Somewhat Agree
- Neither Agree or disagree
- Somewhat Disagree
- Disagree
- Strongly Disagree

16. I feel competent in communicating my contributions/role in rehabilitation patients and their relatives. *

Mark only one oval.

- Strongly Agree
- Agree
- Somewhat Agree
- Neither Agree or disagree
- Somewhat Disagree
- Disagree
- Strongly Disagree

17. I feel competent with regards to my role and function in the interdisciplinary team. *

Mark only one oval.

- Strongly Agree
- Agree
- Somewhat Agree
- Neither Agree or disagree
- Somewhat Disagree
- Disagree
- Strongly Disagree

18. I feel competent with regards to collaborating with multi-disciplinary team members. *

Mark only one oval.

- Strongly Agree
- Agree
- Somewhat Agree
- Neither Agree or disagree
- Somewhat Disagree
- Disagree
- Strongly Disagree

Motivation

Choose the best answer to either to agree or disagree with the statements below.

19. I believe that the understanding and implementation of a behaviour strategy can better respond to the various needs of rehabilitation patients. *

Mark only one oval.

- Strongly Agree
- Agree
- Somewhat Agree
- Neither Agree or disagree
- Somewhat Disagree
- Disagree
- Strongly Disagree

20. The implementation of a behaviour change strategy can help to enhance patients' quality of life. *

Mark only one oval.

- Strongly Agree
- Agree
- Somewhat Agree
- Neither Agree or disagree
- Somewhat Disagree
- Disagree
- Strongly Disagree

21. I believe that the implementation of a behaviour change strategy can help us to become better equipped to encourage autonomy and self-efficacy in rehabilitation patients. *

Mark only one oval.

- Strongly Agree
- Agree
- Somewhat Agree
- Neither Agree or disagree
- Somewhat Disagree
- Disagree
- Strongly Disagree

22. The implementation of a behaviour change strategy can/may be improvement over the current method of addressing the risk factors of NCDs in rehabilitation patients. *

Mark only one oval.

- Strongly Agree
- Agree
- Somewhat Agree
- Neither Agree or disagree
- Somewhat Disagree
- Disagree
- Strongly Disagree

23. All therapists should include behaviour change strategies as routine in the consultations with clients/patients. *

Mark only one oval.

- Strongly Agree
- Agree
- Somewhat Agree
- Neither Agree or disagree
- Somewhat Disagree
- Disagree
- Strongly Disagree

00:06:04.230 --> 00:06:21.570
Gillion Vearey: So just a few things I have somebody the name Amy up top on your thing that's blank and she is the my research assistant just helping with admin. So if you having any problems she'll see if you get kicked off or you need to get back in she'll be the one. And so, just so you know and she's doing all the recording and all of that.
Then secondly I'm going to keep it like in the hour and so it'll be great if you can just jump in and respond to the questions as they come and i'd love to just have everybody engage as much as they can, if you're finding that you're getting a lot of background noise.

You might be muted like if you've got like the dog barking or you know car hooting in the background, you might be muted by my research assistant, just so that the recording doesn't get distorted and.

If I do look away I'm looking at my computer research assistant just making sure that we still going strong. And then i'd love to just start off because most of you don't know each other and you don't know me either maybe really well a few of you do so. As you know, I've ever really kind of shared my heart behind the research and the topic.

00:07:26.220 --> 00:07:46.710
Gillion Vearey: But I am a physiotherapist and I've been working for about this is my 11th year working in physiotherapy in Eastern Cape and it's been a big privilege and it's just had lots of ups and downs, but definitely just grateful to try and like dip into the research field and try and be a rehab professional, which is actually the term that I'm using to describe us together rehab professionals and be able to actually influence how we care for other people so I'd love, if you could just say who you are.
What you do, and maybe something fun about yourself, I will start or something interesting. I was going to say something dramatic but let me not say anything dramatic so yeah like I said a physio but I really love music and I'm been waiting all day to listen to Adele's new album. But I decided to listen to it after this podcast after this webinar so that's my little fun fact Carlien Hudson you want to start with us.

00:08:31.080--> 00:08:54.420
Carlien Hudson Occupational Therapist: Yes, I will start can you hear me properly.
Yes, good yes okay I'm occupational therapist I reside in Graffreinet but practicing PE, and in the medical, legal, medical negligence, FCE special interest group whatever you call it and fun fact have been in the army, for four years that's a fun fact.

00:08:54.420--> 00:08:57.330
Gillion Vearey: Thanks for sharing Liezl you want to go for it.

00:09:00.450 --> 00:09:23.580
Liezl Schalkwyk: And unmute myself hi I'm Liezel I am an occupational therapist I work in PE in private practice, so we do a little bit of everything little bit of paeds's acute, FCE, neuro

rehab and what's fun fact about me I just came back from a week in the Maldives with Karlien.

00:09:28.650 --> 00:09:44.610
Gillion Vearey: Awesome Jacqueline would you like to go next. So everyone, my name is Jacqueline Schoeman people call me Jacs I'm sorry my voice is horrible. I'm a speech therapist and I went for the booster yesterday.

00:09:45.870 --> 00:09:48.090
Gillion Vearey: Thank you for sticking it out.

00:09:48.270 --> 00:09:52.620
Jacqueline Schoeman: Every time I stop my video it's because I'm blowing my nose I'm sorry I just don't want that. yeah.

00:09:58.440 --> 00:09:59.640
Jacqueline Schoeman: Not exactly a fun fact But it's it's.

Gillion Vearey: Thank you. It's a fact nonetheless.

00:10:02.040 --> 00:10:03.000
Jacqueline Schoeman: happy to be here thanks Gillion.

00:10:03.060 --> 00:10:05.610
Gillion Vearey: Thanks so much Karin

00:10:09.450 --> 00:10:31.500

Karin Rose Physio: Hello ek is Karin ek is physiotherapist also in private practice and Gillion is also my right hand girl, and ja no I the fun fact about me is it's weekend baby. And a glass of wine will wait for me. After today's work so that is the most exciting thing in my life right now.

00:10:33.360 --> 00:10:37.020
Gillion Vearey: Thanks for sharing Karin okay Karlien Pieterse.

00:10:40.200 --> 00:10:51.960
Karlien: I'm Karlien I'm an occupational therapist at the aurora hospital, so we mostly treats neuro patients, and I also see a lot of CP kids because I part of the CP project. fun fact about me is that I love modern dancing so I've been dancing since school and even now I'm over thirty and I'm still dancing.

00:11:02.580 --> 00:11:06.900
Gillion Vearey: yeah I love it. Jani, you're up.

00:11:09.210 --> 00:11:18.720
Jani Audiologist: I am Jani I'm an audiologist in port Elizabeth in private practice and fun fact about me is I'm currently five months pregnant.

00:11:19.410 --> 00:11:34.950
Gillion Vearey: Oh yeah congrats that's amazing awesome. Okay, so I am going to have kind of divided the. Discussion focus group into three sections and so I'm going to try and work my way through some of the questions.

00:11:35.310 --> 00:12:16.020
Gillion Vearey: I thought i'd just encourage you, if you feel like you could piggyback off somebody else's thoughts or comments, please feel free to do that don't feel like you have to like wait till you have another unique thought. It kind of helps just seeing if there's similarities in thinking experiences beliefs ideas and so we're going to talk about the specific training that I that you guys watched Thank you so much. And then, how you had in the second section is how you implemented it in your department or even the challenges, I want to hear it all. And then lastly we're going to talk a little bit about recommendations, so thank you so much for even completing some of the other data.

00:12:16.950 --> 00:12:48.090

Gillion Vearey: It was nice just to get sort of holistic view I'm going to try, I was saying to my research assistant, I need to try and make sure that I don't get offended by what you say so I'm not going to be offended because this is not about me I'm just very passionate about health care and patient self efficacy and so whatever it takes to kind of pioneer fields for rehab professionals to come into better ways of caring for their patients so anyway, lets quickly talk about the workshop, and one of the things that I really want to start off saying keeping it open is.

00:12:49.440 --> 00:13:10.020
Gillion Vearey: Considering the training that you watched that I did How did this impact your understanding of health promotion and the role of rehabilitation professionals in health promotion so yeah feel free to unmute yourself if you want to share and then yeah we'll take it from there.

00:13:15.390 --> 00:13:17.100
Jani Audiologist: Can I say something.

00:13:17.580 --> 00:13:18.210
Gillion Vearey: Go for it.

00:13:19.890 --> 00:13:38.760
Jani Audiologist: So for me as an audiologist I feel sometimes you get so tunnel such tunnel vision just dealing with ears and hearing and we don't really our scope is quiet it's not narrow but it's just ears and hearing and I think just going through the training it just Just reminded me that we're dealing with a whole person, and not just ears and hearing and that

there's so many other things, that is going on with them and to not forget about that, when talking to a patient.

00:13:56.040 --> 00:13:56.370
Gillion Vearey: yeah.

00:14:00.000 --> 00:14:34.710
Jacqueline Schoeman: Ja, I totally agree with that what I personally liked about it a lot of stuff that you already do, but now I could put a name to it and put a process to it, I like. Structured things I like you know, being able to see where a patient is so that you know where you are going and now it's just not a random conversation you're bringing up but it's actually part of a process and mapping with all which I really liked So it's some logical thinking and now it's put on to paper with names and I love that so so thanks for that yeah.

00:14:36.900 --> 00:14:43.290
Gillion Vearey: cool anyone else, want to go for it.

00:14:44.550 --> 00:15:36.360
Karin Rose Physio: yeah I just want to add what Jani said, for me it was well as Physios you've got so many different things that we treat and sometimes the person comes in, with a knee, a back and shoulder an ear pain and everything so we also mainly want to focus on one thing, but saying that is we get so lost in what you need to do in that specific thing that we sometimes get confused with time and we don't ask the questions and whereas when I saw this and went through this whole process is just again to why does this person have six pains in the body. So you ask the real questions and actually see is there not something more, were as a person isn't a knee, or is not a shoulder so yeah that took me a little bit back , she said, also to put a name to it, so that was valuable for me.

00:15:39.630 --> 00:16:06.420
Carlien Hudson Occupational Therapist: I also just want to say as occupational therapists we are always realistic we asked about all the ADLs and so also we the asked questions, but to have a name to it that way in the process, you are and being in the medical, legal field, I the assessment is the most important thing, and the report writing so treatment doesn't happen, but we do the recommendations in the report, so I think, to put a name on where the client is that helps a lot.

00:16:11.880 --> 00:16:13.680
Gillion Vearey: anyone else, want to share some thoughts On that, It’s interesting.

00:16:21.390 --> 00:16:54.720
Karlien: can I say something, So one of the nice things I liked about that first one, the ask and the assess, about what you said about like asking open ended questions, because I think that's something we often forget and like asking open ended questions you get actually more to what the patient wants and what their worries is then just getting yes, no or short answers from them, so I really like that first step yeah where you said ask open ended questions yeah.

00:16:55.830 --> 00:17:25.470
Gillion Vearey: Thank you that's that's very valuable because I think we, you know it's a diagram we've probably all seen of of you know, we think that we, we should have the upper hand in people's health care, but actually the patient remains the center you know, but we sometimes push them aside because we like, we can see that they can do xyz in the future, but you know we we wrestle with that and I think that's also what's been valuable for me, so I like that you've you've added that in I think.

00:17:27.480 --> 00:18:01.440
Gillion Vearey: To kind of just move to the second part of that question, which is this might be more like a closed ended question, but just love to hear, maybe reasoning behind this is, do you feel like we based on what you've you heard in the training, we have a role to play in health promotion in improving people's self-efficacy or Is it just along the lines of you know, telling them like noting they have this risk factor, and it could lead, you know, and they have and they are in this stage of behaviour change.

00:18:04.830 --> 00:18:05.940
Gillion Vearey: Go for Liezl.

00:18:06.360 --> 000:18:47.850
Liezl Schalkwyk: So I definitely feel that we do I mean just thinking of going to a GP.
it's a 15-minute consult, that you have so they can only address the thing that you are day for at that moment where with most of our patients, we get to spend about 45 minutes to an hour with them, so we have the time to actually sit down and assess you know.
Where are you, what are the problems, and I feel that relationship that we build with them, they are much more likely to tell us things that are that are wrong, or that they are concerned about, or would like to change or whatever then, maybe saying that to any other professional where you're only spending such a short time with them you don't even get to think about that aspect of it.

00:18:51.060 --> 00:18:56.010
Gillion Vearey: Anyone want to just add some thoughts on it like whether they agree or disagree with it.

00:18:57.480 --> 00:19:27.600
Jani Audiologist: I agree I think definitely that we have a role to play but saying that I do feel like more training would be beneficial like yes, you have high blood pressure, yes are you one treatment like what are the right questions to answer to ask in that regard, and because it's not like I'm going to change the medication or anything but just got more training would be beneficial yeah.

00:19:28.800 --> 00:19:39.840
Gillion Vearey: I did pick that up as the as the common sort of feedback post, the training so yeah anyone else, want to share, whether they agree or disagree with it.

00:19:41.910 --> 00:20:01.200
Karlien: Just on what they were saying now like I also felt like I needed more knowledge, especially with the smoking and the diet Ja, because I'm not the expert day, but I feel like with more with the physical activity, they I can advise or assist the patient, a lot more yeah.

00:20:02.340 --> 00:20:05.310
Gillion Vearey: that's a very helpful point in in light of your field.

00:20:11.520 --> 00:21:00.180
Jacqueline Schoeman: sorry for interrupting there, I completely agree. I'll do it there for example when there is voice problems and there's smoking, you know something on the speech side, I am speech therapist did I say that I can't even remember but anyway.

00:20:21.600 --> 00:20:31.680
Jacqueline Schoeman: So for me there, I know I can actively try and make a change, because I know the direct correlation between, for example, smoking and voice, which is my my field, but obviously if I'm working with strokes there's so many other things, and I know diet and all of those, so I think walking the road with them, there we definitely play a role, because we are the people that spending time with him as Liezl said like in hospital and ask the most questions and actually have an active interest in their life when we do our assessments during our therapy, so they tend to trust us more tend to share more with us, so I think walking the road with him.

00:21:01.980 --> 00:21:50.250
Jacqueline Schoeman: We definitely have a role to play and and like they all said, we might have to learn something more about other things, but it doesn't necessarily have to be that it's more like do you know that there's a problem, what can you do about that, what can we do about, we have an idea, so we see a dietitian so in that sense I feel like we are that middleman directing them to the to the right I've seen people for weeks where I'm the one maybe.

00:21:27.330 --> 00:21:40.530
Jacqueline Schoeman: Having to refer them to an OT to refer them to a dietitian referred to them, where the doctors have seen other professionals have seen him for a while, so I do feel, and that article that you sent on it, we are the the ones that fight for our patients usually the most in terms of holistically, so I definitely agree that this is viable yeah.

00:21:52.500 --> 00:21:58.410
Gillion Vearey: Thanks so much just want to leave it open if anyone else wants to share before I move on.

00:21:59.490 --> 00:22:42.090
Carlien Hudson Occupational Therapist: I just want to say, I saw a client this week actually he had a stroke traumatic brain/head injury and he was talking about his rehabilitation process at like aurora hospital stepped down clinic in Durban And he just said the benefits that he got from the treating therapist I mean like you say you walk a road and you pick up things that other people don't pick up and.

So I think yeah definitely viable, but there are things like for me I feel like I'm like, what what do you call you know a lot of things, but you're not a master of anything as occupational therapist what's the saying.

00:22:43.230 --> 00:22:47.580
Gillion Vearey: I disagree with it, but yeah Just because I know you.

00:22:47.640 --> 00:22:56.190
Carlien Hudson Occupational Therapist: But yeah definitely I think it's really, I think it's it will help a lot with therapy for us know.

00:22:56.670 --> 00:24:04.020
Gillion Vearey: awesome I this is more sort of a closed ended question, you know because I do want to just hear, because those questions that are really add like how did you find being able to figure out where the patient is or the person is on these sort of five those five stages of behaviour change I just would love to just hear the the amount of content that you heard you know about the five stages what. Like I'm trying to also trying to gauge was that sufficient, but were you able to like say Okay, I find it easy, I find it hard, what would be the reasons for that. So those of you, if you're not sure I'm talking about pre contemplation contemplation and I'm forgetting that is action maintenance, what is the middle one I can't I'm sorry it slips my mind, because I'm under pressure here, but yeah if anyone wants to share, I mean please share if it was like if it was really not something that worked for you, but I just love to have that record yeah.

00:24:06.750 --> 00:24:17.850
Carlien Hudson Occupational Therapist: Sorry, so it didn't work for me because I'm doing assessment for medico-legal field so there is no therapy happening so yeah I couldn't get to any of those but yeah.

00:24:21.360 --> 00:24:54.330
Gillion Vearey: Sorry preparation is the other one so just in case you yeah so I'm just wondering, because I, I mean I've spent a lot of time delving into the context and the content of and this particular theory and model so I'm kind of aware of it, but yeah so I just love to hear because I guess part of it is out of our scope but being able to identify it would be helpful in that when we use the five a's or a derivative of the five a's, which is something I'm hoping to kind of work on in the future study so yeah.

00:24:59.310 --> 00:25:42.150
Jacqueline Schoeman: I work in acute only I don't see any patients after acute I don't see therapy patients I'm acute only, and I think that situation you don't actually see people. In the later stages unless it's a third, fourth time coming in and most of the time they're quite medically unstable majority of the patients that I see are medically unstable or in complete shock, because they are in acute phase of whatever is happening to them.
So for me those majority of my patients It's difficult to ask them anything also their speech therapy patients so you don't know whether they are going to answer you.

00:25:43.650 --> 00:26:13.920
Jacqueline Schoeman: But what I've seen a few of my patients that were there a bit longer it's more that they're aware that there is a problem and I think that we just more ask in terms of why are you here, why do you think you are there and that's kind of how how I get to see where they are in that stage, but I don't actually see the process if that makes sense. yeah.

00:26:14.760 --> 00:26:19.620
Gillion Vearey: very helpful yeah Thank you and anyone else.

00:26:20.430 --> 00:27:16.560
Karin Rose Physio: For me, was very valuable to especially having a name to the behavioral changes these, to work with the person and all bio psychosocial all three things again just to go back to the starting point and especially like with people sitting more now with COVID and working from desks that's not correct at home sitting for more hours because every all the meetings on zoom or you know, for whatever reason, like the person I just all before before this to do today; I've got in him in this past three weeks to get to the preparation phase and it's lekker to see that you know, a person that's been having back ache for years and years on end actually to ja to work work step by step with this person actually to see his behaviour changing Where today he told me like Ja I don't think it's ever going to come right and just by trying to again just to go back to the.

00:27:17.400 --> 00:27:38.340
Karin Rose Physio: ja but you are aware of the problem and you are starting to make a change and he just flipped his behaviour you just realized it's already in the preparation phase going to action so yeah for me it's yeah It was very nice to actually see that in a person as you walk the journey with him, as I see less acute people and more going with that stages

00:27:41.280 --> 00:27:43.470
Gillion Vearey: Thanks Karin, Jani would you like to add.

00:27:44.460 --> 00:28:30.870
Jani Audiologist: Yes csv is, for me it was easy to see in which stage there are, because if you ask the right questions and they talk and they tell you that whole life story, but for me, it was difficult to get them to change their behaviour in any way, and because of the nature of my sessions because its more ear hearing related and I couldn't now really change the focus to.
Smoking or something like that yeah so it was it was easy to see which stage there are and what they want to do, or if they want to change the behaviour, but it was difficult to actually get them to change anything.

00:28:31.650 --> 00:29:37.110
Gillion Vearey: mm hmm that's helpful.

I had gotten one of the therapists who was going to be on here as well she's also a speech therapist and I am she ended up not being able to be last minute, but she had this one comment that you wanted to share with us, it just send me send me, you know so that I can have it on record, and she said that for her it was challenging to ask all these questions as a speech therapist about the physical activity, because the person then asked like, why are you asking me these questions like that was what they said like and then.

00:29:06.390 --> 00:29:07.860
Gillion Vearey: While she was trying to kind of relay.
To them well the reason I'm asking these questions is because some of the you know, explaining that it could because sort of issues with your health in the future, and then he jumped on a totally different bandwagon going well, I do have a problem, since I've had the stroke my wife doesn't want to be intimate with me anymore, and so suddenly it became like this whole open door for the person, and I think part of it is like okay now you know I, she said to her, maybe like refer to the OT just kidding.

00:29:37.830 --> 00:30:34.470
Gillion Vearey: But I think to go like it's kind of does open up, and I think that is something that obviously we as therapists have to know, and I think, because we worked at some senses, we did work together with another professional in this field to go Okay, I know when to refer like I know when to refer to the audio the speech I just have experienced in it, but I wonder how much how many people think, in that way of when is the right time to refer on. That discussion and so just interesting to hear you say what you say, because it's like, how do you as an audiologist address somebody smoking like how how would you do that and so that's a very valuable point and I wonder if anyone else has found it similarly like talking about say dieting or like how or alcohol use like, how do we even address that is anybody have any thoughts on that. No pressure.

00:30:37.320 --> 00:31:30.720
Gillion Vearey: Okay awesome Thank you so much for that I think we're going to move on to just a few more questions now just about the intervening, like you, using it, I know some of you find it difficult, some of you, in your context weren't able to use it. So besides the let's talk a little bit about which of the five a's I will I'll give you a description Just to give you a reminder again. Which are the five a's was easy for you to kind of consider because I think a lot of us we ask questions like we do the assessment part because, and I think as therapists we good at assessing in general, what were the other aspects of the five a's that were easy to consider easy to kind of came naturally to you versus Actually, this is hard , this is a hard part, this is, I don't think this is, in my scope I don't yeah along those lines.

00:31:35.670 --> 00:32:20.820
Karin Rose Physio: For me, I found the first two(5A's) and the last two(5A's) quite easy, as we were taught how to treat the person you assess you advise me exercises you assist them well (in) at home home exercise program you arrange or follow ups, because we want them to come back, but the one that I found difficult was the "agree" part and if I remember correctly, your you added something about the it was only four before they agree 4A's but anyway, they agree one was quite quite hard, because you can just take a person so far and

that person needs to you know you can take a donkey to the water you can't make it drink that type of thing so.

00:32:21.420 --> 00:32:46.710
Karin Rose Physio: To change there mind how they are thinking to to set realistic points if you're an alcoholic or a smoker or this or this or with peripheral neuropathy you have to stop smoking it's going to just going to affect you later along the line even more so to get those specific things into motion or really where you can make a difference, I find that extremely difficult I found that as a big challenge.

00:32:47.670 --> 00:32:56.310
Gillion Vearey: Okay, thank you, anyone else have similar views or thoughts found a different “a” difficult.

00:33:02.760 --> 00:33:53.850
Karlien: Well I also think that the “agree” part is the most difficult part like to find the middle ground between what you want the patient to do and what the patient actually wants to do so, I also agree that that the “agree” is the difficult part and then I also think the “arrange” part for me is difficult because I only see the patients as inpatients so I never see them when the outpatient and coming for outpatient therapy so is we try to have a very good follow up with our patients, but then they go to a different therapist so whatever I’ve done with the patient won’t necessarily always carry over into outpatients, so I think that's also a tricky part that fifth one the “arrange” one for me yeah.

00:33:56.790 --> 00:33:59.730
Gillion Vearey: Thank you and Liezl, I see you unmuted.

00:34:00.180 --> 00:35:04.230
Liezl Schalkwyk: Ja so, I am at the opposite end of that again, where I will see a patient after they've been at the rehab setting for six weeks so whatever where there, they are a lot more motivated, because everyone around them is in the same situation as them so it's very easy when you're there to have this idea of this is what you know what my life is going to look like what I’m going to keep exercising or whatever, and because they've got that constant someone wakes them up in the morning, make them do the exercises whatever, but then, when they come to out patients it's quite easy to then go back into you know just the same way of doing things so I, I feel that that area of of motivating them enough to get the buy in from this is where we can see what's wrong they can see what's wrong but they don't necessarily have that buy into actually want to make that change and that point just to get that okay I see what's wrong and actually want to do something about it, and I want to keep doing something about it, I feel that's tricky.

00:35:05.190 --> 00:35:05.460
Gillion Vearey Oh.

00:35:07.080 --> 00:35:08.460
Gillion Vearey: very interesting point.

00:35:09.750 --> 00:36:01.680
Jacqueline Schoeman: yeah me personally, I see just I see so many patients and I don't spend adequate time with each of them, and I think I actually told Liezl this the other day I only assess that's what I do I can't remember the last I've given therapy and I only assess, and then what was interesting for me about this is that, just a mind shift about prevention is also a key component of their view of intervention. And even if it's just planting a seed or whatever I think we can feel very discouraged, because we're only part of one a, and this is five a process yeah

00:35:51.660 --> 00:36:21.600
Jacqueline Schoeman: But yeah So for me personally, I only do the "assess" it's very rare that a patient is in hospital for so long that you get to do a bit more of that, but you do the referral on thing, but not necessarily what with the patient, not that patient centered approach but asking them and (what you if you'd like) I know what you need, I am going to refer you on make sure that you're sorted, but not necessarily sitting with them and setting goals.

00:36:24.720 --> 00:37:16.740
Gillion Vearey: So, so in like listening to you guys I'm wondering, then when we take the five a's and and I hope I above the across training that you know, we don't have to do all five a's in one shot, you know and like you know for Jacqueline not just thinking about let's talk a little bit about time like is that you know I, I know, like Carlien Hudson she's medico-legal field, but it's like I know it's a full on assessment it's intensive and is a very long period of report writing after that so it's like that's you and then Jacqueline you doing like the assessment you coming in, you just got to figure out what's going on and then you've got to respond, you know externally from the patient so maybe we could talk a little bit about implementing the five a's timeframes.

00:37:18.210 --> 00:37:48.300
Gillion Vearey: And maybe even like to you Jani where do you like, do you think that they could be a portion at mean I mean let's just say about I'm not quite sure what of those risk factors would be related to hearing or non-communicable diseases related to hearing at this stage, and you know 'cause I guess yeah it's a story for another day because of time, but I'm just trying to figure out when we think about like implementing this we are the contrast of time like time usage yeah.

00:37:51.810 --> 00:38:41.610
Jani Audiologist: And for me it was difficult so just to get back to the previous question, the first two (5A's) and the last one (5A's) was easy the because I am seeing them again face to face, and then to gauge where they are, but then the "action" part that was difficult for me or "agreeing" for them to "agree" because I'm going to kind of like how do I relate this to my session, but it turns out, the risk factors and I, and I told you this as well on the on the email it's very difficult because I ask these questions, but we don't really go into depth I need to know this smoking, I need to know how active they are, but if you look at hearing

loss on its own as risk factor for everyday life, so you taking hearing loss as what factors, then in I do, that every day and

00:38:44.550 --> 00:38:56.250
Jani Audiologist: and rehab afterwards, but yeah for the risk factors that were listed, it was quite difficult for me and not because of time just because of the nature of condition.

00:38:58.920 --> 00:39:33.960
Gillion Vearey: yeah, it is quite a restricted field, but spills over like in the long term, so when we go from the risk factors we jumped to non communicable diseases, it becomes everybody's it becomes everybody's issue, But like up until that point yeah is where we get involved, and then we have you know the risk factors kind of just kind of in the background, actually so interesting that you sharing that because I think hearing loss, I mean it's still. It does create somebody with disability, you know, like in the long term it's the impact of function and daily living, and so I think in general it's something.

00:39:34.050 --> 00:39:56.760
Gillion Vearey: I found the question so interesting I was like that's such a good point. To such as it is a risk factor like hearing loss is a risk factor for for several things anyway sorry I'm digressing a little bit and anyone else, want to just share, about the timing in using any one of the five a's I don't know if you have anything else to share Carlien Hudson up there about the timing

00:39:59.670 --> 00:40:25.620
Carlien Hudson Occupational Therapist: ja the timing, I also want to say the "assess" I can do, and like Jackie said, I can recommend treatment and refer but yeah as if I only have time for assess to the other four "a's" I'm actually not getting time for and it's just because there's no more time you can only do this much in a session yeah yeah.

00:40:26.970 --> 00:40:28.410
Gillion Vearey: that's very helpful thanks.

00:40:28.830 --> 00:41:35.070
Karlien: Ja well I see my patients, like every single day, so I really have enough time I think, to implement, but I think, from my side, the biggest challenge for me is the patient's low level of cognition so I work with patients TBIs(Traumatic Brain Injuries) strokes that are so their cognition is so severely affected they don't even have the insight into what has happened to them, they don't even know that they've had a stroke or a TBI. So I think the patient's level of cognition really plays a big role in implementing the five A's, but there I think we need to get the GP more involved and maybe use the 5A's with families, because I mean we've had recently at so many TBIs, after three years or so, they picked up so so much weight and they couldn't fit into the wheelchairs anymore, because the family just gives them whatever food they want, because you know.

00:41:35.610 --> 00:41:57.840
Karlien: The thing with the TBI is you want to eat all the time, because you know that that locus of control like to stop so I think they like, we can really use the five a's with the family

and try and get them on board as well because because of the patients cognitive fallout they might not be able to actively be involved, but the family will yeah.

00:41:59.190 --> 00:42:20.670
Gillion Vearey: Such valid point. Such a valid point and I'm just kind of go through a question anyone else wants to kind of jump on what I think again it's like it's it's for me what I'm experiencing in this discussion, because I mean I haven't really been able to talk much about.

00:42:21.090 --> 00:43:01.320
Gillion Vearey: This because I mean isolation, you know so like with work and stuff but it's so amazing just to see like it's almost like the circle is widening around the patient, you know, like we've got the patient at the center and we all like we keep it very tight, like our field our sphere, our expertise but actually when you bring in family you're going okay you expanding the circle, a little bit and then you know, when you start to say, well, we must refer to be picked up a hearing hearing loss, we must refer to an Audiologist we noticing swallowing issues you know, like we just need to get other people other therapists involved and it's one of the things I enjoyed actually about working in government was the collaboration.

00:43:02.250 --> 00:43:17.640
Gillion Vearey: And I wonder if anyone wants to just talk to a collaboration with other therapists in light of health promotion or other professionals, maybe what other professionals, you would like to you would consider needing to collaborate in using the using the five A's.

00:43:19.500 --> 00:43:44.250
Jacqueline Schoeman: that's my favorite word("Collaborate") in the whole wide world like I love that word, because I can't survive without it like I find out more about my patients from my OTS that work with me because I'm kind of in there assessing your swallowing then out of there and then I get all the background information it's not how it should be I know, but I can't without my OTS and then without my dietitians but then, also because I know where my referral route is and now.

00:43:44.790 --> 00:44:06.180
Jacqueline Schoeman: The therapists at aurora, for example, where majority of my patients go or to my other outpatient therapist I then have this information that I got from them and hospital, I can say you know they're in this contemplation stage they know, maybe what the problem is so they have no idea what the problem is, or they have this, and this, and this issue, but they are not completely aware of this.

00:44:07.650 --> 00:44:22.710
Jacqueline Schoeman: And I know the family has this goal, but I know the patient doesn't agree or other way around, and I can hand that over so it's not and that just helps the therapist at the other side too, (who) don't have to start right at the beginning, at the "assess", but I can maybe.

00:44:22.710 --> 00:44:34.860

Jacqueline Schoeman: start right in the middle setting the goals, and I know, especially like majority of my patients going to aurora they set goals in the middle of this and they're at in the beginning, in the middle and, at the end before they go on to outpatient therapy as well.

00:44:35.370 --> 00:44:58.140
Jacqueline Schoeman: there's a lot of ongoing goal setting and that just helps the next therapist or whoever, because we're all a team, if we can give this information, all down the line it just helps the next one to not start at the beginning again, but then to start where the patient is at and save that bit of time, because we all crushed the time so, then at least yeah teamwork teamwork makes the dream work definitely.

00:45:05.310 --> 00:45:06.810
Gillion Vearey: Karin I see you unmuted.

00:45:08.370 --> 00:45:58.500
Karin Rose Physio: I'm very grateful for the environment that I work in and listen to all of you guys, because obviously huge difference which I didn't even think about this all the whole acute versus in hospital outpatient how much it affects the quality of the five a's and with one person versus the whole team and where a person will lie down, and you can still chat ask for 45 minutes to an hour, where it's it's I think much easier than then for you in an acute setting like you guys get some wow I respect that I learned already something just by listening to that where I can imagine how much of a struggle, it is to implement even one or two of the five as so wow.

00:45:59.640 --> 00:46:20.670
Karin Rose Physio: As a physio I think I've got it easier to do implement the whole thing of the family and and and the where we should support a little bit for the acute setting or maybe educate the in an outpatient like health sector you know, to go a little bit more of this because of the challenges in in an acute setting so yeah that's very interesting.

00:46:23.790 --> 00:46:49.830
Gillion Vearey: that's so good very helpful I, I wonder if we could maybe just think about outside the rehabilitation professionals that are in that we represent and go like.
What would assist you better like what other personnel other yeah other personnel other health professionals or outside of that besides the family, which I think is very key.

00:46:50.910 --> 00:47:33.090
Gillion Vearey: would be beneficial to bring into the this because I like that these been this conversation of all the five a's doesn't belong in everyone's hands, you know, like every therapist doesn't have to hold all the five a's that's just very interesting that's just come up.

I never thought about that, like, I thought it was on on me to try and work this person through because I am similar to Karin it that I spend time with my patients, I have a bit more time, but it's interesting to see that there's this thing of maybe all the five a's don't belong to me who else would we bring into the five a's kind of I don't want to give suggestions, because I don't want to be like so try to keep myself back from like giving suggestions.

00:47:33.840 --> 00:48:00.510
Karlien: Well, one that came up for me, now is the psychologists Okay, because I think ja patients with especially depression yoh they struggle, a lot to change their habits and I think, in that sense the psychologists can really assist, and they also spend lots of time with the patient they have the time to kind of discuss some of these steps, and yeah, to change the behaviour.

00:47:53.280 --> 00:47:53.940
Gillion Vearey: So yeah. I think so it's good.

00:48:06.480 --> 00:48:31.860
Carlien Hudson Occupational Therapist: I was also thinking the treating Dr to from beginning say, and this is not good for you, you have to lose weight now, I sometimes think they are seeing clients, so fast I forget to tell them that the client knows, maybe this is not good for him, but they don't tell them listen, you have to change your diet, you must stop smoking, otherwise this is this is going to happen, just to help with the agreement it doesn't actually have to be all 5A's as but just do.

00:48:32.310 --> 00:48:33.180
Gillion Vearey: That so good.

00:48:36.900 --> 00:48:51.480
Jacqueline Schoeman: We all have those patients That said, but my doctor didn't tell me that my doctor didn't it was necessary, my doctor. Doctors the end all sometimes so you just kind of need the doctor to just tick Then you can work on it.

00:48:52.440 --> 00:49:28.800
Gillion Vearey: yeah that's really good I think the interesting thing is in in the literature. Most of the literature and the five a's is actually with physicians doctors and nurses and I think both of them see patients for shorter time than Then, as this is my interpretation of the data and I'm sure you can agree with me and so it's interesting to see that and that's also why I sort of jumped on this because going like this is such a useful tool for us as therapists to have in our back pocket, and now this has, I mean this is just broken open this thing of like.

00:49:29.100 --> 00:50:34.770
Gillion Vearey: I don't have to carry all (5A's) that honestly like my experience has been in my in my field has been of love physio there's just been so hard to see people suffer when you kind of reach the end of your line which you think it is, but you should still do the agree and assist and help with the action and so I'm going to put a statement out the before we go to the last just chatting a bit about recommendations and maybe people can just talk about and I just lost the statement because it just came to mind, it was about appropriate referrals.
Sometimes this is my statement sometimes the best therapy is an appropriate referral anybody want to speak on that anyone want to just jump in down, no, no pressure, this is

actually not in my notes, it just came to me as we've been you've been sharing like sometimes the best referral yeah. The best therapy isn't appropriate referral.

00:50:38.220 --> 00:50:39.030
Gillion Vearey: Go for it Jani.

00:50:40.140 --> 00:51:14.400
Jani Audiologist: I, I agree, I agree, especially being an audiologist very limited in what you can treat, but I also want to say I think finances financial abilities of the patient really play a role, because they come in and they're already complaining about how much a diagnostic assessment is, and they need to pay it out of their pockets and now I want to refer them to a dietitian or somebody and it's just going to cost more money and so that, for me, that's also just something to think about.

00:51:17.370 --> 00:51:24.120
Gillion Vearey: very good point anyway, anyone else agree with that, just so we can get a consensus Liezl.

00:51:24.390 --> 00:52:33.330
Liezl Schalkwyk: I definitely agree with that and especially with us even yeah even with PMD patients it's always a thing of you only get a certain amount of sessions, you have this much to do in this little time so that's that's definitely something but, that being said, are also very strongly feel that like Carlien was saying just now, you know as OTs, we often feel like we're a jack of all trades and a master of none, we have all this info and we know all the stuff but we're not necessarily the best person to be treating it so I feel very strongly about knowing when I'm not the best to be treating that so I might be able to give you a little bit of advice about diet and we can chat about what your diet looks like, but in the end of the day, I'm not a dietitian I can't give you a diet plan I can tell you this this and this so yeah I feel knowing when what I know isn't enough to help this person anymore is is very important, I feel so strongly about it, but then, on the other hand, finances is often the reason why that wouldn't actually able to work.

00:52:35.400 --> 00:53:38.910
Gillion Vearey: very helpful, I see lots of nodding I like that I'm going to note, many people nodded when Liezel said xyz.
Thanks liezel I I'm just looking over here just to see if there's one more question in this. Before we move on to recommendations, thank you for sticking with me you've got about just over 10 minutes before we wrap up, I just want to ask does anybody want to just share. If they were able to obviously and you don't have to if you've logged something I do get that data obviously but i'd love to just hear somebody did she that they try to use it a can't exactly remember Oh, I think Karin was saying about it, but like a patient experience anybody want to share like a brief patient experience, those who were able to really like grab like use it in the consultation with any of the a's actually doesn't necessarily have to be all A's, just yeah just nice to just hear.

00:53:43.500 --> 00:54:22.890

Jacqueline Schoeman: I uhm I did it with a repeat offender of mine actually good friends by now so it was actually a bit of an exception for me so good timing on your part, Gillion. Yeah, he's quite young and it's like a second or third stroke he was quite lucky in the sense that he only has the dysarthria from my side, so, which also made him an ideal candidate for this, because we only sat and chatted for the assessment part because I had to assess how intelligible his conversation, and so we kind of just chatted about hey you're back again.

00:54:23.550 --> 00:55:08.340
Jacqueline Schoeman: What do you think happened so we kind of did that whole where is he in this whole process, what does he think needs to happen, what does he think needs to change and what has he tried and what hasn't he tried so that was actually kind of just a conversation, but it gave me, so much so many things to pass on to the therapist that I handed them over to in Humansdorp is so nice about this, and he knows this, and this is not where it should be, and he was actually thinking of ways that he can limit his alcohol intake and so on, so it was actually I was lucky in a sense, because it was a 45 minutes of just talking about it which should be really great while I was assessing. So that's an exception for me in terms of that, but it was really nice because it gave me some extra questions to ask and.

00:55:17.610 --> 00:55:46.920
Jacqueline Schoeman: Think about and just realize like you know, prevention is is key, and I know we chatted about finances now, you know, and referring them on, but (rehospitalisation) patients keep on ending up in hospital. So actually going to people, making a change may actually just save them in the long run, and not restroking or something to think about yes so actually had a very good experience with these five A's in that week, so thank you.

00:55:48.540 --> 00:56:49.290
Gillion Vearey: Thanks, anyone else? Okay, that I think that is That it for like you and so any just before we move into some recommendation questions I've got about we've got 10 minutes according to Amy.I just wanted to know if there's anything else anyone wants to just kind of it wasn't covered about trying to implement the five a's we've covered a lot of ground which has been very beneficial I think it's going to be wonderful analyzing this data. And really advocate because I have had quite a small pool of people who have actually joined, so it was very interesting to just have these amazing ladies just really coming with all the data, because this is the main chunk of my research so in our last comments about implementing the five a's and your experience executing on them.

00:56:54.480 --> 00:58:03.990
Gillion Vearey: Great I really wish this was going to be face to face, you know, so if I knew we were all going to be us all from like port Elizabeth of will have like had big great coffee for you and donuts and yeah okay oh sorry I've got one more question anybody want to sorry I was thinking about COVID and I was thinking about if there's any comments in we What if COVID would have had an impact on patient first and like patient relation, because you know.

Are we spending, where we hadn't want to suggest this but I'm thinking about if I knew this patient was a potential contacts. Would I be staying longer in their company, for example, oh just thinking about how people in hospital haven't been able to get visitors you know, like how, and now we can't really speak to the stroke patients family and help them with the five a's like was suggested, which I think was brilliant I'm not wondering any thoughts about COVID and in light of of sort of being intervening as therapists may have answered my own question but.

00:58:11.250 --> 00:58:15.090
Jacqueline Schoeman: Again, I feel like I haven't yeah talked in three days now I must I feel like I've been talking the whole day.

00:58:17.070 --> 00:58:30.150
Gillion Vearey: I just want you to know Jackie came at the back end of intervention I messaged, and she was just like I'm in and I thought, thank God, she yoh she came in about two just over two weeks ago, just under two weeks ago and I was.

00:58:30.150 --> 00:58:33.270
Jacqueline Schoeman: Thinking what happens when you randomly go help out of the new hospital.

00:58:33.270 --> 00:58:34.380
Gillion Vearey: Yes, she just ee bumped into each other at the hospital and I messaged her thank you for speaking lots.

00:58:40.050 --> 00:59:43.920
Jacqueline Schoeman: You are better than me so yeah I know masters students I do have my respect. For me the difficult thing was the only time I ever see families is during visiting times, or at the day that they're being discharged and then I usually if they're not going some way, where I know I'm sending you with a good heart we organize a training session where are sit with them, and that has been absent for the past year and a half, I haven't seen families so everything's been over the phone and families are getting phone calls from everyone, they are all over the place, they are overwhelmed so my simple.
You know home program or something like that can get lost in it all my questions or ideas can get completely lost because it's just overwhelming I haven't seen their family members in three weeks. So it's been it's been difficult, in that sense, especially if you know this patient is getting discharged home and then maybe not interested in anything else, apart from that, so you don't have that let's sit together let's plan ahead let's set up a follow up session.

00:59:44.430 --> 01:00:28.380
Jacqueline Schoeman: And that's been really difficult in the one sense that families either think they family members doing better or worse than they actually are, because they don't have that and not seeing them so they don't have a realistic picture of where the patient is. yeah so and family members, my especially my dementia patients they they going they're doing very difficult in hospital without seeing the family so I'm not having this moment of

family member comes to visit I can do so much more with them because they're just happier. So it's definitely been influencing and causing despondency in both parties.

01:00:32.190 --> 01:00:33.540
Gillion Vearey: Jani you've got something.

01:00:35.340 --> 01:01:43.170
Jani Audiologist: yeah, for me I work with a lot of geriatric patients and then mostly in retirement villages and then we do home visits, because they can't drive or can't get to us and COVID especially the retirement villages were close they were under complete lockdown so they were months, where we couldn't see our patients, we couldn't. couldn't see them and their family also not so for me after about six, I think the first lockdown was almost six months that I couldn't see my patients and then they left without hearing and they're not seeing anybody and they're not being social and they're not. Getting to see the therapist or anything and then it's shocking to see how much deterioration there is cognitively but also physically because they don't all have so if you if you see what all of these therapists do and then take it away, then you see the effect So for me that was a real eye opener about what we do really works, because if you don't do it, then they it really affects them.

01:01:45.990 --> 01:01:46.830
Gillion Vearey: very helpful.

01:01:47.670 --> 01:01:49.740
Gillion Vearey: To have that info yeah that's good Thank you so.

01:01:53.400 --> 01:02:05.280
Gillion Vearey: We have a really want to honour your time like three three minutes, maybe just maybe if you can give me one extra minute because I just wanted to like considering the training and trying to implement it.

01:02:05.790 --> 01:02:21.540
Gillion Vearey: Like what is going forward look like, for you as a therapist in light of the five a's and feeling like what is your level of I can do this that's the best way I can sum up the five four questions in this category.

01:02:22.800 --> 01:02:36.330
Gillion Vearey: So, like yeah cause obviously there were some comments in the in the logs and in the post survey a post training survey about more training role play stuff like that so I'm just wondering.

01:02:37.620 --> 01:02:57.000
Gillion Vearey: It sounds to me like it was semi sufficient, but not sufficient enough I just would love to hear on record, if you have any thoughts on on that so yeah please if even if

you have like one sentence, maybe each of you can maybe say something, then we'll just finish it up after that thanks so much No pressure I'm just I'm just yeah cool.

01:03:05.790 --> 01:03:35.460
Liezl Schalkwyk: wait I want to say something. I think that in a setting like this, where you're talking to other therapists you do tend to learn a lot more from other people, so I think you know, even if it is a zoom training or I think that I feel like I would pay more attention than sitting on my own listening and you're watching a video where I can hear and learn from other people in the experiences yeah.

01:03:39.420 --> 01:03:40.410
Gillion Vearey: so good, so they good.

01:03:45.330 --> 01:03:46.770
Jacqueline Schoeman: some case studies More case studies, I did this with this patients, but this patient, this was you know what I did like a yeah.yeah.

01:03:55.620 --> 01:04:26.250
Karlien: yeah I also feel like some examples of.
How to use in your session would been a bit more helpful. yeah yeah, but I think after this whole getogether, I understand it, a little bit more now And I sort of feel like now if you only implement one of the five A's it's Okay, because I felt like Okay, I have to implement all of that, and so I think y'all after this I've learned a lot.

01:04:28.470 --> 01:04:28.890
Gillion Vearey: me too anyone else oh yeah Jani I see you unmuted.

01:04:36.450 --> 01:04:52.980
Jani Audiologist: I agree with everything that's been said, and I think, for me, a big difference of something that will do definitely is to refer, if I see there's a problem or and it's something I that comes up in a session I would definitely be more open to referrals.

01:04:54.930 --> 01:04:55.290
Gillion Vearey: mm hmm.

01:04:58.590 --> 01:04:59.310
Gillion Vearey: yeah any.

01:04:59.370 --> 01:05:02.010
Gillion Vearey: Other one of anyone else would last minute thoughts.

01:05:06.330 --> 01:05:06.480
Gillion Vearey: Oh.

01:05:07.590 --> 01:05:18.000
Gillion Vearey: awesome Okay, I do want to keep our time Thank you this is so valuable I you like, I could cry and how valuable this was but we weren't shed tears about this.

01:05:18.270 --> 01:05:26.250
Gillion Vearey: Thank you so much to each one of you, thank you for your time this is like the last phase of my intervention