

The role of general practitioner (GP) gender on women's sense of
health autonomy and wellbeing

Gráinne Clarke

Submitted in partial fulfilment of the requirements of the BA Hons in Psychology at Dublin
Business School, School of Arts, Dublin.

Supervisor: Pauline Hyland

Word Count: 8950

March 2020

Department of Psychology

Dublin Business School

TABLE OF CONTENTS

| | |
|--|----|
| DECLARATION | 4 |
| ACKNOWLEDGEMENTS | 5 |
| ABSTRACT | 6 |
| 1. INTRODUCTION..... | 7 |
| 1.1 Doctor-Patient Gender Concordance..... | 8 |
| 1.2 Health Autonomy | 11 |
| 1.3 Theories related to health behaviours..... | 13 |
| 1.4 Wellbeing | 15 |
| 1.4.1 Mental wellbeing..... | 16 |
| 1.4.2 Positive Affect..... | 17 |
| 1.4.3 General self-efficacy | 18 |
| 1.5 Rationale and Aims | 19 |
| 1.6 Hypotheses | 20 |
| 2. METHOD..... | 21 |
| 2.1 Participants | 21 |
| 2.2 Design..... | 22 |
| 2.3 Materials..... | 24 |
| 2.3.1 Health Care Climate Questionnaire..... | 24 |
| 2.3.2 Positive Affect and Negative Affect Schedule | 25 |
| 2.3.3 World Health Organisation – Five Item Wellbeing Index..... | 25 |
| 2.3.4 General Self-Efficacy Scale | 26 |
| 2.4 Procedure..... | 26 |
| 2.5 Ethics | 27 |
| 3. RESULTS | 30 |

| | |
|--|----|
| | 3 |
| 3.1 Overview of Results | 30 |
| 3.2 Descriptive Statistics | 30 |
| 3.3 Inferential Statistics | 33 |
| 3.3.1 Hypothesis 1 | 33 |
| 3.3.2 Hypothesis 2 | 35 |
| 3.3.3 Hypothesis 3 | 36 |
| 3.3.4 Additional Analysis | 38 |
| 4. DISCUSSION | 40 |
| 4.1 Interpretation | 40 |
| 4.1.1 Aim of the study | 40 |
| 4.1.2 Hypothesis 1 Findings | 40 |
| 4.1.3 Hypothesis 2 Findings | 41 |
| 4.1.4 Hypothesis 3 Findings | 42 |
| 4.1.5 Additional Findings | 42 |
| 4.2 Critical Evaluation..... | 43 |
| 4.2.1 Limitations of the study..... | 43 |
| 4.2.2 Strengths of the study | 44 |
| 4.2.3 Future Research..... | 44 |
| 4.2.4 Implications and Applications..... | 45 |
| 4.2.5 Conclusion..... | 45 |
| REFERENCES..... | 47 |
| APPENDICES..... | 57 |
| APPENDIX A: Information and Consent Sheet | 57 |
| APPENDIX B: Demographic Questions..... | 58 |
| APPENDIX C: Health Care Climate Questionnaire | 59 |
| APPENDIX D: Positive Affect Negative Affect Schedule (PANAS) | 60 |
| APPENDIX E: WHO-5 Well-Being Index | 61 |
| APPENDIX F: General Self-Efficacy Scale | 62 |
| APPENDIX G: Debrief sheet..... | 63 |

DECLARATION

‘I declare that this thesis that I have submitted to Dublin Business School for the award of BA (Hons) Psychology is the result of my own investigations, except where otherwise stated, where it is clearly acknowledged by references. Furthermore, this work has not been submitted for any other degree.’

Word count: 8950

Signed: Gráinne Clarke

Date: 14th March 2020

ACKNOWLEDGEMENTS

Sincerest thanks to my college family, my classmates, who throughout the last 4 years were supportive, kind, brave, intelligent and always good humoured. My thanks to my supervisor Pauline Hyland, who is a wonderful helpful supervisor and also a wonderful helpful person. Thanks to Jonathan Murphy, whose advice in the first lecture helped me through 4 years. Thanks to my friends, who showed love and interest always. A sincere thank you to the women who kindly gave their time to participate in this study and to those who passed it on. Thanks to my sister Máire for giving Tess and Charlotte multiple lifts and dinners and stepping in. Thanks to Ross for understanding and accepting the exhaustion, the lost weekends and the timetabled weeks, without your support this would not have happened, a great gift. And finally, thanks to my amazing daughters, Anna, Charlotte and Tess, three fantastic female warriors who I couldn't be prouder of.

ABSTRACT

The study aims to explore the differences in women's sense of health autonomy and wellbeing based on their GP's gender, it also looks at the association of health autonomy and wellbeing. Design is quantitative survey-based using non-probability snowball sampling methods of Irish females of 18+ years (N=174). The measures used were the Health Care Climate Questionnaire (Williams et al., 1996), Positive Affect Negative Affect Schedule (Watson, Clark, & Teitlegen, 1988), 5-Item Well-Being 5 Item (WHO, 1998) and General Self-Efficacy scale (Schwarzer & Jerusalem, 1995). Results found that there was not a significant difference in health autonomy between GP gender groups, however, there was a significant difference in wellbeing between the groups. Wellbeing was shown to predict health autonomy. Additionally, the 51 – 65 age group showed significantly higher levels of mental health wellbeing. The findings support building medical practitioners' health autonomy skills and for further research on GP-patient gender concordance.

1. INTRODUCTION

Health autonomy can be described as shared decision making by patients and healthcare professionals regarding health matters (Ubel, Scherr & Fagerlin, 2017). It emphasises the association between doctor-patient interpersonal relationships that promote autonomy and the patient's intrinsic motivation that leads to improved health and lifestyle choices (Batalden et al., 2016). Doctor-patient gender concordance is defined as when the doctor and the patient are of the same sex (Crawford, Paranji, Chandra, Wright & Kisuule, 2019). There is a growing body of research proposing that female GP-patient gender concordance results in better adherence to healthy lifestyle advice and improved health outcomes (Schieber et al., 2014). Additionally, there is robust evidence demonstrating that positive predictors of autonomy are constituents of psychological wellbeing (Serdiuk, Danyliuk & Chaika, 2018). The objectives of this study are to connect the influence of General Practitioner (GP) gender concordance to women's health autonomy and subsequently their wellbeing. Furthermore, the study examines the component factors of wellbeing that influence women's sense of health autonomy.

The literature review will define and consider doctor-patient gender concordance, discussing its influence on women's health outcomes. Health autonomy will also be defined and discussed. Additionally, to provide a basis for this study, seminal theories that relate to health behaviour will be considered. Finally, the factor of wellbeing and its components a) positive affect b) mental wellbeing and c) self-efficacy will be defined and their influence will be explored.

1.1 Doctor-Patient Gender Concordance

There are approximately 4000 registered general practitioners (GPs) in Ireland, 46% are female, 34% of whom work part-time (HSE, 2015); this implies that there are less female GP clinic hours available to female patients than male GP hours. Doctor-patient gender concordance is a growing area of research that explores the impacts of patient's health outcomes based on gender concordance or gender discordance with their physician (Schieber et al., 2014; Wyatt et al., 2014; Greenwood, Carnahan & Huang, 2018). This study investigates the role of female doctor-patient gender concordance in health autonomy and wellbeing and subsequently the association between wellbeing and women's sense of health autonomy. Primary care GPs play an important first defence role in health choices and preventative strategies for chronic disease conditions such as hypertension, diabetes, cancer, stroke and coronary issues (Edwards, Turner, Virdee & Mant, 2019). Other GP tasks include prescribing medication, advice on recuperation and sick leave certification. Female GP-patient gender concordance has shown to result in better adherence to healthy lifestyle advice as has been seen in research on chronic condition self-care showing results of improvement in diabetes and hypertension for female patients under the advice of female GPs (Schieber et al., 2014). Interestingly, Schieber et al (2014) research also found that female patients and male GPs had more disagreements on preventative health strategies such as weight loss; the female patients described male GPs as more interventionist and they felt they used more dominant voice tones. The evidence of gender concordance is also present in acute medicine. A recent large sample US longitudinal study examining survival rates of patients following acute myocardial infarctions (heart attacks) showed higher mortality rates for female patients treated by male physicians and lower mortality rates for females treated by female physicians (Greenwood et

al., 2018). Interestingly, the same research showed that female patient survival rates increase when treated by male physicians who collaborated more with female physicians (Greenwood et al., 2018). In general practice, diagnosing heart conditions such as coronary heart disease in women is less likely than male diagnosis resulting in women suffering gender health inequality on the thoroughness of their coronary investigations (Adams et al., 2008). However, contradictory evidence of a sample of 5667 obese patients found that female doctor-patient gender concordance was less positively associated with nutrition and physical activity advice than male doctor-patient gender concordant groups (Pickett-Blakely, Bleich & Cooper, 2011). Research by Crawford et al. (2019) found while there was not a significant increase in hospital in-patient satisfaction in gender concordant dyads, however, gender concordance did significantly increase out-patient satisfaction. Additionally, other research on preventative screening found that gender concordance does not improve gender health screen adherence with the exception of mammograph screening, which saw women making more health autonomous adherence decisions (Jerant, Bertakis, Fenton, Tancredi & Franks, 2011).

On examining the research on why female gender concordance may have an effect on health autonomy, there are several determinants to analyse. Research proposes that better outcomes by female gender concordance patients is linked to communication styles, leading to the conclusion that female GPs tend to be effective at building partnership-like relationships with their female patients and those relationships are perceived by the patient to be more equal and less GP dominant (Wyatt et al., 2014). Furthermore, female doctor-patient decision making encourages the patients to ask more questions and be more engaged in psychosocial clinical interventions than male patients (Wyatt et al., 2014). Evidence looking at nutrition, exercise and weight loss in female GP-patient concordance groups suggests that health improvement

may be related to the patients perception of higher social proximity, mutual connection and trust in female GPs (Schieber et al., 2014). Non-verbal communication seems to have an influence, demonstrated by a study by Hall, Irish, Roter, Ehrlich & Miller (1994) that observed that female GPs conducted longer sessions, nodded, smiled more and passed on more medical information than their male counterparts. Further research on communication in gender concordant dyads found not only were female to female dyads sessions longer and involved more conversation, they also included more bio-medical discussions which helps establish medical trust (Sandhu, Adams, Singleton, Clark-Carter & Kidd, 2009). This may be connected to female GPs capacity to relate to women's family circumstances and psychological needs, which enables greater interpersonal connection, early diagnosis and higher patient adherence to lifestyle advice (Shiels & Gabbay, 2006). Shiels and Gabby (2006) proposed that female gender concordance has positive effects on certified sick leave showing lower rates among female patients as they are more likely to accept advice to return to work from a female doctor. With global concerns around anti-biotic resistance, recent research showed that female GPs prescribe less antibiotic medication to women as they are more likely to engage in patient centred conversations, giving women a voice in their healthcare options (Eggermont et al., 2018). Conversely, evidence suggests women's health responses rely not only on communication but on other factors such as gender identity, ethnicity and country of residence; arguing that understanding the woman's full health status requires complex and individualised communication (Ramsey, 2017). The aim of this research is to bridge the gap in the literature regarding the connection between GP interpersonal factors seen in female patient-doctor gender concordance and increased health autonomy, reduction in doctor-patient power differences and improved wellbeing.

1.2 Health Autonomy

Research in co-production of health services describe health autonomy as shared decision making that focuses on interpersonal relationships that promote autonomy and intrinsic motivation leading to better lifestyle choices (Batalden et al., 2016). Health autonomy is linked beyond physical health to mental health, wellbeing and better quality of life (Lee & Lin, 2010). As individual patients are unique with specific needs and contexts, effective health care requires co-production and the involvement of the patient. For a number of years design thinking has been employed in non-health services using methodology that places the customer at the heart of designing a service. Recently this thinking has been applied to the healthcare services; it is referred to as coproduction or health autonomy and its aim is to codesign health services using patients lived experience as a key driver (Lee, 2019). Recent evidence supports the case that health autonomy and co-production lead to improved health outcomes as it considers the patients specific social structures and wellbeing factors (Bart et al., 2019). This form of healthcare requires a mix of medical expertise, collaborative skills and psychosocial engagement (Elwyn, Cochran & Pignone, 2017). Health autonomy is practised in acute care settings, however research by Twomey (2012) has highlighted concerns on health autonomy and breast cancer patients suggesting that male clinicians approach to decision making is based on male preference which promotes gender bias giving less opportunities for female patient's to exercise health autonomy. A recent Australian qualitative study showed that breast cancer patients felt clinicians held social power over patients and that there is a requirement for communication of shared values and self-reflection to build patients' assertiveness and autonomous voice (Shih et al., 2018). Although patients want autonomy, there are challenges

regarding training healthcare professionals on providing autonomous support; specific training is required as health autonomy is not only dependent on interpersonal relationships but it is also dependent on cultural and socio economic factors which can result in slow and complex implementation (Cullati, Courvoisier, Charvet-Berard & Perneger, 2011). A further concern is that research in co-design in primary care services is an emergent area; past research on female health autonomy has predominantly focused on reproductive health rather than preventative or general medicine (Osamor & Grady, 2016).

Collaboration and communication have been shown to be critical for shared decision making and health autonomy in Primary Care (Nieuwboer et al., 2017). Female clinicians show greater propensity and capacity to collaborate and share knowledge than their male counterparts (Abramo, D'Angelo, & Murgia, 2013; Bell, Michalec, & Arenson, 2014). Interestingly, female patients treated by male clinicians have better outcomes when there is a female collaborating or advising on the medical team (Greenwood et al., 2018). Conflicting evidence shows that male to male interactions in social dilemma scenarios scored higher in co-operation than female to female interactions (Balliet, Li, Macfarlan & Van Vugt, 2011). Furthermore, there are negative outcomes from female collaborative engagement which by its psychological and emotional impacts may lead to early career burn-out for female GPs (Gleichgerricht & Decety, 2013). Collaboration is a constituent determinant of health-autonomy and is particularly relevant to the aim of the current study.

A reliable measure for health autonomy is the Health Care Climate Questionnaire (HCCQ) (Williams, Grow, Freedman, Ryan & Deci, 1996). The HCCQ measure was created

to evaluate patient's perceived autonomy supportiveness provided by their healthcare professionals. Adaptations are used across healthcare to measure health autonomy including the Modified Health Care Climate Questionnaire (mHCCQ) for Breast Cancer Treatment (Shumway et al., 2015), Important Other Climate Questionnaire for smoking cessation (IOCQ-S) and for diet (IOCQ_D) (Williams et al., 2006). The HCCQ measure will be suitable for the aim of this study in assessing women's sense of health autonomy.

1.3 Theories related to health behaviours

The Theory of Planned Behaviour (Ajzen, 1985) is a seminal social cognitive model of health-related behaviour. The theory proposes that attitude, social norm and perceived behavioural control are antecedents for intention which leads to health-related behaviour. This thesis proposes that there are more determinants of women's self-directed health behaviours than the theory accounts for. This is supported by research that criticised the theory, highlighting that other contextual variables predict health behaviours such as gender, emotional status, age, socio-economic status, health status and cultural influences (Sniehotta, Pesseau & Araújo-Soares, 2014). Furthermore, it has been shown that behavioural intention does not always lead to positive health-related action; research shows that the proportion of individuals with intention that follow up and take health lifestyle action is low (Sheeran, 2002). Recent research shows limited support for perceived behavioural control as a driver of health related action, showing more support for self-efficacy in driving healthy behaviours (Parkinson, David, Rundle-Thiele, 2017).

Recent emergent theories such as self-determination theory is being acknowledged as important in health outcomes. Self-determination theory emphasises intrinsic motivation and proposes that health environments should enhance autonomy, co-design relationships and wellness (Deci & Ryan, 2008). The Health Climate Change Questionnaire (HCCQ) measure has been utilised by researchers to measure health autonomy in relation to self-determination theoretical frameworks. An example study applied self-determination theory to the treatment of patients with diabetes, the findings showed that patients who received autonomy support improved their glucose control and overall wellbeing (Williams, Freedman & Deci, 1998). Recent French research examining self-determination theory and physical exercise found that health related advice which evokes intrinsic motivating factors such as enjoyment in being fit or prevention for illness were effective drivers of the individuals physical exercise; however external pressure did not benefit individual's wellbeing and resulted in short term health behaviours (Laroche, Roussel, Cury & Boiche, 2019). This supports the hypothesis for the current research that health autonomy is associated to wellbeing. However, in contradiction, traditional medical hierarchical power still remains strong today. It is difficult to extinguish engrained cultural and social traditional medical models seen in the seminal theory of Bases of Power (French & Raven, 1959) that proposes that traditional schemas of doctors having legitimate power can influence health outcomes from their hierarchical power advantage over the patient. Also, the power of social cues remains deeply embedded in human psychologically, as suggested by Milgram's (1963) obedience theory showing socially recognisable props that imply power. Medics' white coats and stethoscopes primes the subordinate patient to follow instructions rather act autonomously. However, most emergent theories on health behaviours do not consider obedience or command and control approaches as effective as they produce

low adherence and low sustainability in healthy lifestyle choices. Current research in Ireland and internationally recommends patient centred shared decision making, co-design and autonomy support approaches as they are positively associated with an individual's health and wellbeing (Keating, McDermott & Montgomery, 2013). The research supports the aims of this thesis in describing the important association of health autonomy, improved health outcomes and wellbeing.

1.4 Wellbeing

This study describes wellbeing as a combination of positive affect, mental wellbeing and self-efficacy. Recent literature by Serdiuk et al. (2018) proposes that the most significant influence on an individual's sense of autonomy is an amalgam of predictors thematically linked to wellbeing. Constituents that determine wellbeing are aspects such as positive feelings, happiness, active creativity, self-esteem, self-efficacy, engagement and mental wellness (Mackay, Egli, Booker & Prendergast, 2019; Serdiuk et al., 2018). Wellbeing is positively associated with better health status and longevity (Mackay et al., 2019). Positive affect, mental wellbeing and self-efficacy cover these key constituents and therefore have been chosen to represent overall wellbeing in the current study. Additionally, the association of wellbeing and sense of autonomy is bidirectional, evidence supports that greater perceived autonomy indicates higher levels of wellbeing (Carrasco, Campbell, López, Poblete & García-Mas, 2013). It is important to look at the literature of each component of wellbeing (positive affect, mental wellbeing and self-efficacy) being measured in this thesis. Each of these measures are thematically linked but are not duplicate components of wellbeing.

1.4.1 Mental wellbeing

Mental wellbeing is described as an overall term for positive mental state which includes happiness, life satisfaction, positive feelings and is positively associated with better outcomes in adulthood and overall health (Bell, Audrey, Gunnell, Cooper & Campbell, 2019; McKay et al., 2019). Interestingly, age has been found to be important predictor of mental wellbeing; a study examining mental wellbeing across age ranges found that individuals in late middle age had significantly higher mental wellbeing than both younger and older groups (Gupta, 2016). Moreover, research specifically looking at women and attitude to aging found that positive attitude and self-compassion contributes to mental wellbeing in older middle age women (Brown, Bryant, Brown, Bei & Judd, 2016). Psychological wellbeing is affected by socio-political factors that affect health autonomy; a recent study showed that women from countries with lower civil rights and marginalised groups had lower health satisfaction and psychological wellbeing (Weinstein, Legate, Al-Khouja, Şengül & Şule, 2018). However, research with Asian, European and Latin American participants suggests that there is no significant differences in mental wellbeing levels across different cultural and socio-demographic groups (Akhtar & Kroener-Herwig, 2019). This study used the 5-item World Health Organization 5-item Well-Being Index (WHO5) (WHO, 1998) as a measure of mental wellbeing as it is a brief global rating scale of subjective well-being adapted from the WHO-10 that is applicable across health study fields (Topp, Østergaard, Søndergaard & Bech, 2015). The present study uses the WHO5 measure to supports the aim of examining GP gender linkage to wellbeing and furthermore the association between wellbeing and health autonomy.

1.4.2 Positive Affect

Positive Affect (PA) is the level to which an individual feels alert, eager and lively. A person with high levels of positive affect has high energy, high alertness and enjoyable engagement in life, a person with low positive affect may seem depressed and have low energy (Watson, Clark, & Teilegen, 1988). Studies show that there is a strong association between positive affect and self-efficacy and autonomy support in performance in arts and sports (Lemos, Wulf, Lewthwaite & Chiviacowsky, 2017; Tay, Pawelski & Keith, 2018). Interestingly, a longitudinal study on sports coaches found the relationship is bi-directional in that autonomy supportive coaching predicts positive affect for the coaches (Stebbing, Taylor & Spray, 2015). An important factor in autonomy is age, however, evidence from Brazil contradicts the link with autonomy and age, it showed that older women with autonomy support in Pilates classes increases their positive affect (Curi, Haas, Alves-Vilaça & Fernandes, 2018). There are questions on universality of the concept that autonomy is influenced by positive affect. Criticisms point to the problems of applying the concept to cultures outside of western individualist cultures particularly eastern collectivist cultures where the collective group has more significance (Gambrel & Cianci, 2003). However, this view is counterbalanced by the argument that autonomy is associated to positive affect universally, albeit suppressed in some eastern cultures and communities (Chirkov, Ryan & Sheldon, 2010). A widely used and high reliability measure of positive affect is the positive affect subscale of the Positive Affect Negative Affect Schedule (PANAS) Measure (Watson, Clark, & Teilegen, 1988). The use of PANAS supports the present study's aim of assessing GP gender linkage to wellbeing and subsequently wellbeing association to health autonomy.

1.4.3 General self-efficacy

General self-efficacy is a broad sense of an individual's ability to overcome issues and a sense of personal competence in dealing with a variety of stressful scenarios (Schwarzer & Jerusalem, 1995). Self-Efficacy Theory (Bandura, 1977) describes the concept as an individuals' belief in their ability to perform an action competently. Literature suggests that self-efficacy is shown to be a strong predictor of wellbeing, health and quality of life (Schwarzer & Hallum, 2008), furthermore autonomy and self-efficacy are positively associated with wellbeing (Reis, Sheldon, Gable, Roscoe & Ryan, 2018); showing support of the aim of the present study. Universality has been demonstrated as the association between self-efficacy, autonomy and wellbeing is found across cultures (Yu, Levesque-Bristol & Maeda, 2018). Conversely, research argues that universality may be an opposing factor in the power of self-efficacy specifically in non-western cultures where freedom of speech and individualistic choice are not valued (Markus & Schwartz, 2010). There is robust evidence to suggest that higher levels of self-efficacy are found to be positively associated with medication adherence and is further strengthened by patient-doctor empowerment and joint autonomy (Náfrádi, Nakamoto & Schulz, 2017). The current study used the General Self-Efficacy scale (GSE) (Schwarzer & Jerusalem, 1995) to measure self-efficacy. The GSE ten-item scale is the predominant global measure on self-efficacy, it includes elements related to optimism, positive self-belief and life satisfaction. Negative results are linked to stress, depression and health complaints.

Wellbeing in the context of this thesis is the combination of positive affect, mental wellbeing and general self-efficacy. This research aims to connect women's wellbeing to their perceived health autonomy influenced by the role of GP gender.

1.5 Rationale and Aims

There is significant research associating health autonomy and wellbeing (Deci & Ryan, 2008; Serdiuk et al., 2018), additionally there is ample research on female doctor-patient concordance and positive health impacts (Schieber et al., 2014; Greenwood et al., 2018), however there is a gap in the literature on the role of GP gender on women's health autonomy and wellbeing. This research addresses this restraint of sparse evidence, particularly in the Irish context. The study aims to examine the differences in women's sense of health autonomy based on their GP's gender. It further examines the influence of women's sense of autonomy in their healthcare and wellbeing. The aim of the research to explore the determinants of the benefits of female GP-patient concordance which points to communication, interpersonal skills and biopsychosocial healthcare approaches. However, research shows us that the majority of healthcare budgets are directed at biomedical care rather than biopsychosocial care, while the majority of illnesses can be reduced by preventative health lifestyle behaviours such as smoking cessation, exercise and nutrition (Fava & Sonino, 2007). The present study hopes to highlight the need for male and female GPs to build communication skills so to better relate to patient's health beyond their physical body but also to the patient's mental health, psychological, socio-economic and environmental factors. Strong interpersonal skills and two-way communication is vital for GP-patient collaboration that results in patient's sense of health autonomy and positive wellbeing. The study will support future government health policies and medical training on patient-centred care that improves health and lowers health costs in Ireland.

1.6 Hypotheses

Hypothesis 1 states that there will be a significant difference in the health autonomy scores between women who attend female GPs and women who attend male GPs.

Hypothesis 2 states that there will be a significant difference in wellbeing (positive affect scores, mental wellbeing scores and general self-efficacy scores) between women in the female GP group and women in the male GP group.

Hypothesis 3 states positive affect, mental wellbeing and general self-efficacy will be a significant predictor of women's sense of their health autonomy.

2. METHOD

2.1 Participants

The study used a general population sample with an inclusion criterion of female residents of Ireland who are over 18 years of age. The study conducted online and hardcopy questionnaire-based surveys using non-probability snowball sampling methods. 182 participants took part in the study; however, 8 participants did not declare that they were over 18 years and female residents of Ireland, therefore they were precluded from responding to the study and subsequently excluded from the data analysis. The data analysis is based on the resulting 174 useable responses. The participants were recruited using the social media platform WhatsApp by requesting participants to take part in the study by completing a survey using an embedded Microsoft Forms online survey link. Older participants were given hardcopy surveys to complete. One hardcopy survey was returned completed and 173 Microsoft Forms online surveys were completed. Participants age ranges were dispersed across the 18 – 34, 35 – 50, 51 – 65 and 65+ group with the 65+ group being the lowest represented group (n = 8) and 35 – 50 (n = 78) being the highest represented group followed by 51 – 65 (n = 54) and 18 – 34 (n = 34) groups respectively. The age range percentage breakdown is illustrated in Table 1.

Table 1. Frequency table showing age percentage breakdown

| Age Range | Frequency | Percent % | Valid Percent | Cumulative Percent |
|-----------|-----------|-----------|---------------|--------------------|
| 18 - 34 | 34 | 19.50 | 19.50 | 19.50 |
| 35 – 50 | 78 | 44.80 | 44.80 | 64.40 |
| 51 – 65 | 54 | 31.00 | 31.00 | 95.40 |

| | | | | |
|-------|-----|--------|--------|--------|
| 65+ | 8 | 4.60 | 4.60 | 100.00 |
| Total | 174 | 100.00 | 100.00 | |

Two of the three hypotheses analysed in this study compare the groups who attend male GPs against the group who attend female GPs, therefore the sampled required sufficient number of responses in each group for validity. Of the valid responses, 56 indicated that they attend a male GP most regularly and 117 indicated that they attend a female GP most regularly, one response was blank. The sample size satisfies the minimum assumption of 12 per group required for a Multivariate Analysis of Variance (MANOVA) used in hypothesis 2. The overall sample size of 174 analysed using the psychometric measures in the 3 hypotheses is within an acceptable range to comply with guidelines of Cohen's table (Cohen, 1992) medium size sample for probability ($\alpha = .5$) and medium effect size power (.80).

2.2 Design

The study design is non-experimental, quantitative, descriptive and correlational. The survey-based design entailed an online self-conducted questionnaire developed through Microsoft forms. A hardcopy version was distributed to women who did not choose to use digital media. Participants in the survey did not include their name ensuring that responses were anonymous and confidential. The design of the survey consisted of a cover page with consent and exclusion criteria (See Appendix A), 7 demographic questions (See Appendix B) and 4 psychometric measures namely; Health Care Climate Questionnaire (HCCQ) (Williams et al., 1996) (See Appendix C), Positive Affect Negative Affect Schedule (PANAS) (Watson,

Clark, & Teilegen, 1988) (See Appendix D), World Health Organisation 5-Item Well-Being Index (WHO-5) (WHO, 1998) (See Appendix E), General Self-Efficacy scale (GSE) (Schwarzer & Jerusalem, 1995) (See Appendix F). The survey included a Debrief form including thank you and supports (See Appendix G).

The data resulting from the surveys was transferred to IBM SPSS Statistics version 26.0 software tool to conduct descriptive and inferential statistical analysis. Descriptive statistics were run on the full dataset detailing reliability, number, mean, standard deviation, minimum, maximum, skewness and kurtosis of all psychometric measures. Also, descriptive statistics were run to display number, mean and standard deviation on psychometric measures broken down in male GP group and female GP group.

Hypothesis 1 (H1) was investigated using an Independent Sample t-test analysing the difference of the scale dependent variables (DV) HCCQ Sense of Health Autonomy scores across the two nominal independent variable (IV) groups; female GP group and male GP group.

Hypothesis 2 (H2) was investigated using a Multivariate Analysis of Variance (MANOVA) to analyse the difference in 'Wellbeing' which is an amalgam of 3 theoretically linked dependent variables (DV) Positive Affect subscale of PANAS, WHO-5 and GSE across the categorical independent variable (IV) GP Gender.

Hypothesis 3 (H3) was examined by conducting a Multiple Regression analysis on the relationship of 'Wellbeing' using multiple scale predictor variables (PV) Positive Affect subscale of PANAS, WHO-5 and GSE to predict the scale criterion variable (CV) Sense of Health Autonomy.

2.3 Materials

The materials used in this study were hard copy and online surveys containing a cover page with consent and inclusion criteria, 7 demographic questions, 4 psychometric questionnaires and a debrief sheet. The demographic questions included were age range, employment status, level of education, relationship status, number of children, sex of the GP most regularly attended and no of GP visits per year ran (See Appendix B). The questionnaires included in the survey were the Health Care Climate Questionnaire (HCCQ) (Williams et al., 1996) (See Appendix C), Positive Affect Negative Affect Schedule (PANAS) (Watson, Clark, & Teitlegen, 1988) (See Appendix D), World Health Organisation 5-Item Well-Being Index (WHO-5) (WHO, 1998) (See Appendix E), General Self-Efficacy scale (GSE) (Schwarzer & Jerusalem, 1995) (See Appendix F). The survey included a Debrief form including thank you and supports (See Appendix G). Microsoft Forms was used for the online survey distributed through the social media platform WhatsApp. Microsoft Excel was used to download the online surveys responses and input the hardcopy responses. IBM SPSS Statistics version 26.0 software tool was used to statistically analyse the data.

2.3.1 Health Care Climate Questionnaire

The Health Care Climate Questionnaire (HCCQ) (Williams et al., 1996) is a measure used to assess patients perceived sense of health autonomy (see Appendix C). The long form HCCQ used in this study consists of 15 questions based around the patient's perception of their medical practitioner's autonomy supportiveness in their clinical practice. The self-report questionnaire uses a 7-point Likert scale from Strongly Disagree to Strongly Agree. There are

variations of the HCCQ which can be used in different contexts. Scoring is calculated by reverse coding item 13 on the scale and then averaging the total scores. The higher the average score represents higher perceived autonomy supportiveness. Research reports Cronbach's alpha of .85 shows strong internal reliability (Kasser & Ryan, 1999).

2.3.2 Positive Affect and Negative Affect Schedule

The Positive Affect and Negative Affect Schedule (PANAS) (Watson, Clark, & Tellegen, 1988) includes two self-report 10-item subscales measuring positive affect (PA) and negative affect (NA) (see Appendix D). PANAS is a widely used measure that assesses the extent in the last 2 weeks participants felt positive or negative feelings by rating against emotion words on a 5-point Likert scale from 1 Very slightly to 5 Extremely. Ten words in the PA subscale used in the current study are: Interested, Excited, Strong, Enthusiastic, Proud, Alert, Inspired, Determined, Attentive, Active. Scoring is the addition of PA words to compute 'Total PA' score. Research reports Cronbach's alpha scores between .81 and .92 showing high internal reliability (Russell & Daniels, 2018).

2.3.3 World Health Organisation – Five Item Wellbeing Index

World Health Organisation 5-Item Well-Being Index (WHO-5) (WHO, 1998) is a brief self-reported measure of psychological wellbeing (see Appendix E). It was first used in the European WHO Office in 1998 to measure wellbeing in primary care settings. It is widely used internationally and has been translated into over 30 languages. Participants rate their responses to 5 statements of wellbeing over the last two weeks on a 7-point Likert scale from 0 At No

Time to 5 All of the time. Scoring is derived as the sum of the scores multiplied by 4, with zero score representing the most negative wellbeing and 100 score the most positive wellbeing. Research indicates the internal reliability of the WHO-5 is strong (Cronbach's alpha = .83) (Garland et al., 2018).

2.3.4 General Self-Efficacy Scale

General Self-Efficacy Scale (GSE) (Schwarzer & Jerusalem, 1995) is an extensively used self-reported 10-item measure to assess perceived self-efficacy for the general adult population (see Appendix F). It has been translated into over 30 languages and has been used widely for over 20 years internationally. The measure's purpose is to evaluate perceived self-efficacy in coping with daily challenges and stresses. Participants rate their responses to 10 statements against a 4-point Likert scale from 1 Not at all true to 4 Exactly True. Total score is an addition of all response scores with 10 representing lowest self-efficacy and the score of 40 representing the maximum perceived self-efficacy. The scale is unidimensional and does not require recoding. Across international samples, Cronbach's alphas ranged from .76 to .90, most alphas were in the high .80s which indicates high internal reliability (Schwarzer & Hallum, 2008).

2.4 Procedure

Data gathering in the current study commenced in November 2019, data collection concluded in January 2020. All online surveys were distributed using the social media platform

WhatsApp with an explanatory message to participants, this resulted resulting in 173 valid complete responses. On opening the online Microsoft Forms link, the participants were presented an introductory description of the study highlighting inclusion criteria and consent clauses. The online form first two questions regard consent and inclusion criteria; question 1 was ‘Do you consent to taking part in this research?’ and question 2 was ‘Do you declare you are female, over 18 years old and resident in Ireland?’. If either question is answered with a ‘No’ response, the participant is navigated directly to the final debrief screen and they are precluded from the survey. When both question 1 & 2 are answered by a ‘Yes’ response, the participant can progress to answer the demographic questions and the four psychometric questionnaires. All answers were optional and sequential excluding the initial 2 obligatory questions. The average completion time of the full survey was 9.08 minutes. On completion of the full survey the participants reach the debrief and thank you screen which includes supports contact information and researcher contact details. Five hardcopy surveys were distributed to women who expressed a preference for the hardcopy version. One of the hardcopy surveys was returned completed, the remaining four were not returned. After the survey closed, the data was transferred from Microsoft forms and hardcopy to a MS Excel spreadsheet and coded numerically including blank values. The MS Excel spreadsheet was then loaded to IBM SPSS Statistics V26.0. Recoding and computations were completed before statistical analysis was conducted to derive the results of the 3 hypotheses.

2.5 Ethics

The Study complies with the Psychological Society of Ireland Code of Ethics (The Psychological Society of Ireland, 2011); Respect for the rights and dignity of the person,

Competence, Responsibility and Integrity and is in compliance with the DBS Ethical Guidelines for Research with Human Participants 2019 (DBS, 2019). The research proposal was submitted to DBS ethics approval protocol, which applies approval of Category A type studies initially at filter committee level, and possibly further approval through the DBS Ethics Committee. The research was approved without need for amendment by the DBS ethics filter committee in November 2019.

The design of the study was cognisant of potential risks of harm or distress in posing questions on women's health autonomy, affect and wellbeing as they may trigger some minor negative feelings. The design mitigated these risks by firstly, utilising psychometric measures that are widely used internationally and recommended as low risk, secondly, clearly informing the participants that they have the right to withdraw or withhold answers throughout the questionnaires and thirdly, by providing a debrief sheet with contact details of social support groups (Samaritans and Aware) in the event of personal distress or psychological discomfort.

Ethical concerns on consent were addressed by clearly stating on the cover page that by completing the study informed consent has been given. Question 1 of the survey asks explicitly for consent; the participant cannot continue to any other questions unless the consent is provided by the participant. Question 2 asks the respondents to declare that they are in the inclusion criteria of female, over 18 years old and a resident of Ireland. The participants were prohibited to progress to other questions unless a positive declaration is offered by the participant on the first 2 questions. Vulnerable groups were not included in the sample. The description of how the finding will be disseminated and reported was included explaining that

the research was part of academic attainment and that it will be presented at the student conference in DBS in March 2020. Deception was not utilised in the study design, transparency and openness was provided by supplying the contact details of the researcher and supervisor for further information.

Potential confidentiality and data protection were carefully considered ethically in the design of the study. The study participants engaged in the research voluntarily. The survey was confidential, personal details were anonymised, no names or identifying addresses were collected and the data was stored securely. The identity of each participant was provided as a unique ID number for anonymity. The research did not use video, audio, or photographic collection methods. All digitally based data was held securely on a password protected platform only accessible to the researcher. Hard copy survey responses were held in secure storage and will be held and destroyed following GDPR guidelines. Microsoft Forms used in the collection of data is a securely encrypted cloud-based software that is compliance with GDPR data protection standards. All participants were informed that the survey was anonymous and the findings of the study would be presented at the student conference in DBS in March 2020.

3. RESULTS

3.1 Overview of Results

In line with the aims of this study, descriptive and inferential statistical analysis was conducted to investigate the relationship between GP gender concordance, wellbeing and health autonomy. The data gathered in the survey-based study was entered into SPSS Statistics 26.0 software to conduct automated frequency analysis, descriptive analysis, independent sample t-test, multivariate analysis of variance (MANOVA), multiple regression and additional analysis using one-way analysis of variance (ANOVA).

3.2 Descriptive Statistics

Frequency statistical analysis shown on Figure 1 below shows the percentage breakdown of sex of the GP most frequently visited by the participants in the study.

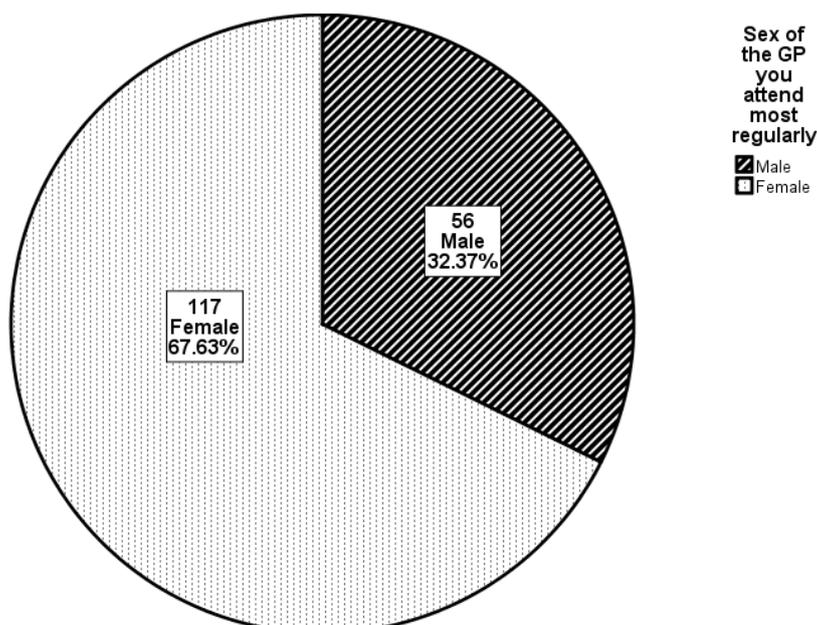


Figure 1. Pie Chart showing percentage breakdown based on sex of GP most attended

Of the 174 participants, 56 visited a male GP most often representing 32.37% of the survey responses, 117 participants visit a female GP most often representing 67.63% of the study respondents; 1 GP field was blank. This analysis suggests that women are twice as likely to attend a female GPs for their general health care than male GPs.

The descriptive statistical analysis shown on Table 2 illustrates the reliability Cronbach's alpha, number, mean, standard deviation (SD), minimum, maximum, skewness and kurtosis for each of the psychometric measures used in the study; Health Autonomy (HCCQ), Positive Affect subscale (PA), Negative Affect subscale (NA), WHO 5 Item Wellbeing (WHO5) and General Self-Efficacy (GSE).

Table 2. *Reliability and Descriptive Statistics of Psychological Measures*

| Measure | Reliability | N | Mean | SD | Min | Max | Skewness | Kurtosis |
|---------|-------------|-----|-------|-------|-------|-------|----------|----------|
| HCCQ | .95 | 152 | 5.39 | 1.22 | 1.53 | 7.00 | -.71 | -.13 |
| PA | .90 | 169 | 31.38 | 7.64 | 12.00 | 47.00 | -.29 | -.36 |
| NA | .88 | 173 | 19.60 | 7.39 | 10.00 | 44.00 | .94 | .45 |
| WHO5 | .84 | 172 | 48.63 | 20.64 | 4.00 | 88.00 | -.14 | -.82 |
| GSE | .89 | 168 | 30.82 | 4.00 | 16.00 | 40.00 | -.31 | 1.55 |

The descriptive statistics shown on table 2 indicate strong internal reliability scores across all measures; HCCQ Cronbach's alpha = .95, PA Cronbach's alpha = .90, NA Cronbach's alpha = .88, WHO5 Cronbach's alpha = .84 and GSE Cronbach's alpha = .89. The

psychometric measures performed well in the study, all above .8, which are consistent with the reported studies described in the methodology section. The table illustrates that HCCQ (M = 5.39, SD = 1.22), PA (M = 31.38, SD = 7.64), NA (M = 19.60, SD = 7.39), WHO5 (M = 48.63, SD = 20.64) and GSE (M = 30.82, SD = 4.00) shows expected means for these measures. Skewness is close to zero indicating normal distribution. Kurtosis was less than 3 indicating platykurtic distribution with no extreme outliers. The minimum and maximum scores across the measures; HCCQ Min = 1.53 Max = 7.00; PA Min = 12.00 Max = 47.00; NA Min = 10.00 Max = 44.00, WHO5 Min 4.00 Max = 88.00, GSE Min = 16.00 Max 40.00 shows a broad range of scores across the sample.

Table 3 below shows the breakdown of number, mean and standard deviation across the psychometric measures by GP gender.

Table 3. *Descriptive Statistics Number, Mean and SD of Psychological Measures by GP Gender*

| Measure by GP Gender | N | Mean | SD |
|----------------------|-----|-------|------|
| HCCQ Female GP | 96 | 5.45 | 1.17 |
| HCCQ Male GP | 55 | 5.29 | 1.32 |
| PA Female GP | 114 | 30.69 | 7.39 |
| PA Male GP | 54 | 32.83 | 8.07 |
| NA Female GP | 116 | 19.13 | 7.10 |
| NA Male GP | 56 | 20.43 | 7.93 |

| | | | |
|----------------|-----|-------|-------|
| WHO5 Female GP | 115 | 49.63 | 19.77 |
| WHO5 Male GP | 56 | 46.93 | 22.40 |
| GSE Female GP | 114 | 30.78 | 3.84 |
| GSE Male GP | 53 | 30.89 | 4.41 |

Table 3 shows health autonomy (HCCQ) and wellbeing (WHO5) having higher mean scores for the female GP group while positive affect (PA) shows lower mean scores for the female group. Negative affect has higher mean scores for the male GP group.

3.3 Inferential Statistics

3.3.1 Hypothesis 1

Hypothesis 1 states there will be a significant difference in the health autonomy scores between women who attend female GPs and women who attend male GPs.

Hypothesis 1 (H1) was investigated by conducting an Independent Sample t-test that analysed the difference of the scale dependent variables (DV) HCCQ Sense of Health Autonomy scores across the two nominal independent variable (IV) groups; female GP group and male GP group.

The female GP group (Mean = 5.45, SD = 1.17) had higher Health Autonomy Scores than the male GP group (Mean = 5.29, SD = 1.32). The 95% confidence limits show that the population mean difference of the variables lies somewhere between -.57 and .25.

An independent samples t-test found that there was not a statistically significant difference between health autonomy scores of the female GP group and the male GP group ($t(149) = -.79, p = .433$). Therefore, the null hypothesis cannot be rejected. Differences in health autonomy scores across GP groups are shown below (see figure 2).

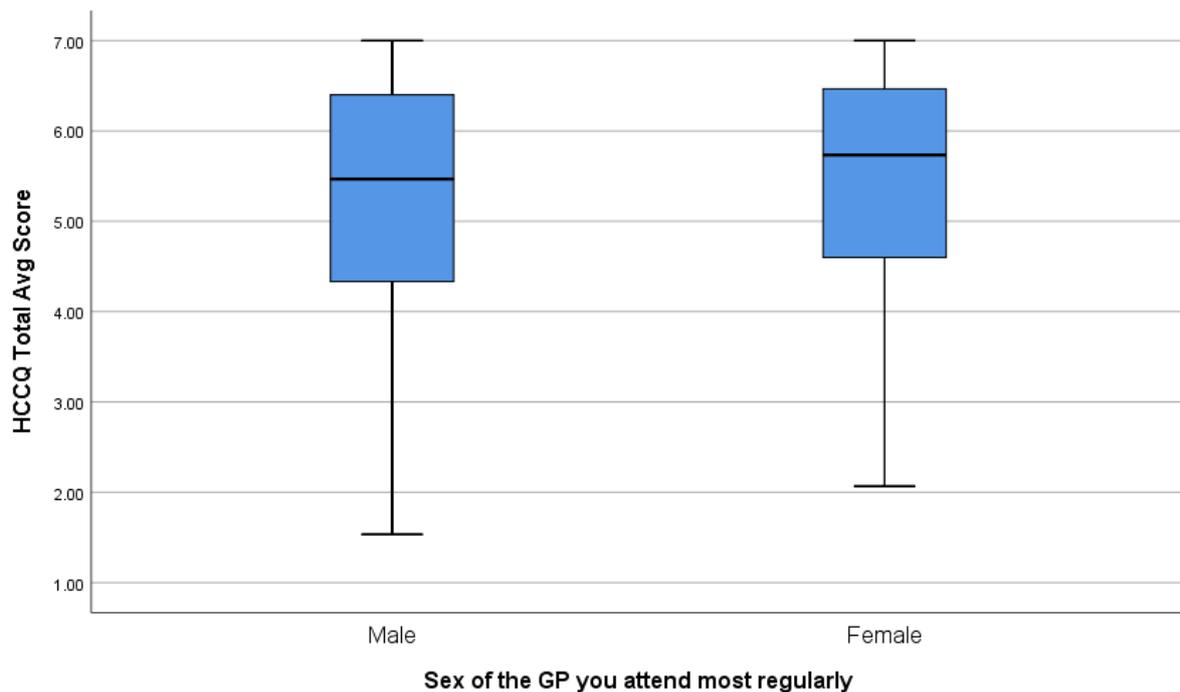


Figure 2. Box plot highlighting differences between sense of health autonomy scores (y axis) and GP sex (x axis)

The chart above (figure 2) illustrates that there is slightly higher health autonomy mean scores in the female GP group than in the male GP group.

3.3.2 Hypothesis 2

***Hypothesis 2:** There will be a significant difference in wellbeing (positive affect scores, mental wellbeing scores and general self-efficacy scores) between women in the female GP group and women in the male GP group.*

Hypothesis 2 (H2) was investigated by conducting a Multivariate Analysis of Variance (MANOVA) to assess the difference in 'Wellbeing' as an amalgam of 3 theoretically linked dependent variables (DV) Positive Affect subscale PA, WHO-5 and GSE across the categorical independent variable (IV) GP Gender.

A one-way multivariate ANOVA found that there was a statistically significant difference in levels of Wellbeing between the female GP group and the male GP group ($F(3,157) = 3.39, p = .020$) with an effect size of .06. Therefore, the null hypothesis can be rejected. Following a Bonferroni adjustment of .017 there was no significant difference between the two GP gender groups on mental wellbeing ($F(1,159) = .30, p = .584$) and general self-efficacy ($F(1,159) = .00, p = .949$). However, there was significant difference between the female GP group and the male GP group for Positive Affect ($F(1,159) = 4.28, p = .040$) with an effect size of .03 with the male GP group ($M = 33.14, SD = 7.51$) reporting higher levels of positive affect than the female GP group ($M = 30.56, SD = 7.27$). The combined Wellbeing has significant differences across the GP gender groups, more specifically the male GP group had significantly higher positive affect than female GP group.

3.3.3 Hypothesis 3

***Hypothesis 3:** Positive affect, mental wellbeing and general self-efficacy will be a significant predictor of women's sense of their health autonomy.*

Hypothesis 3 (H3) was examined by conducting a Multiple Regression to analyse the relationship of 'Wellbeing' using multiple scale predictor variables (PV) Positive Affect, WHO-5 and GSE as a predictor of the scale criterion variable (CV) Sense of Health Autonomy (HCCQ). On testing the assumptions; normal distribution, Pearson's correlation, multicollinearity, singularity were not broken. However, Mahal distances on one data record = 21.58 breaching Mahal critical value 16.27 for 3 IVs. The data record was removed from the data set and the Multiple Regression analysis was rerun with the following results.

Multiple regression found that the three predictors positive affect, mental wellbeing and general self-efficacy explained 6% of variance in sense of health autonomy ($R^2 = .06$, $F(3, 137) = 4.10$, $p = .008$). It was found that positive affect did not significantly predict sense of health autonomy ($\beta = .17$, $p = .121$, 95% CI = $-.01, .06$), mental wellbeing was not a significant predictor ($\beta = .15$, $p = .163$, 95% CI = $.00, .02$) and general self-efficacy was not a significant predictor ($\beta = .01$, $p = .953$, 95% CI = $-.05, .06$). Therefore, the overall null hypothesis can be rejected, however on the individual predictor level the null hypothesis cannot be rejected. Figure 3 - 5 illustrates sense of health autonomy levels (HCCQ scores) across positive affect scores, mental wellbeing scores and general self-efficacy scores.

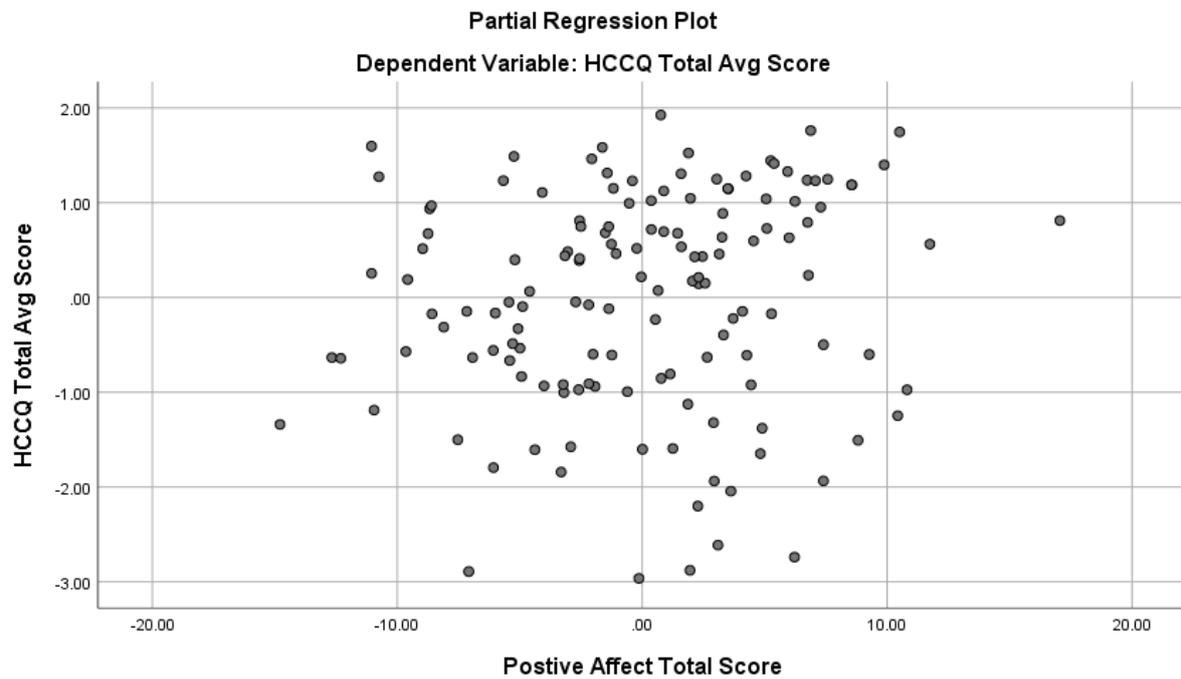


Figure 3: Scatter plot displaying health autonomy levels (HCCQ) across positive affect scores

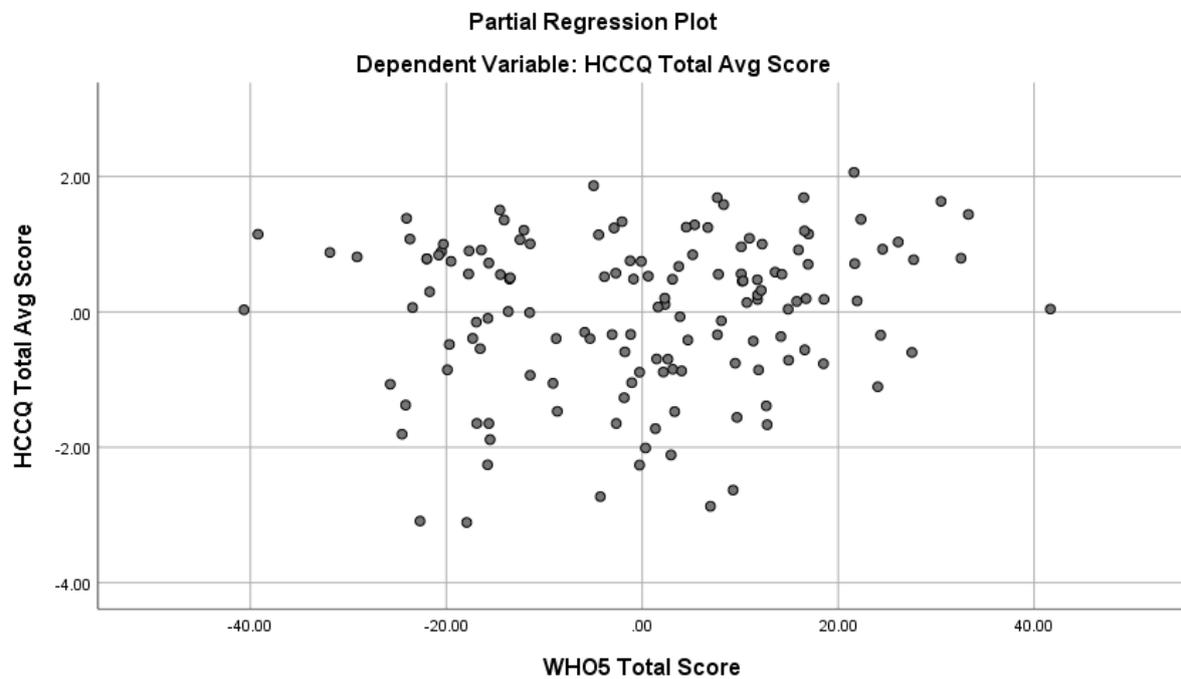


Figure 4: Scatter plot displaying health autonomy levels (HCCQ) across mental wellbeing (WHO5) scores

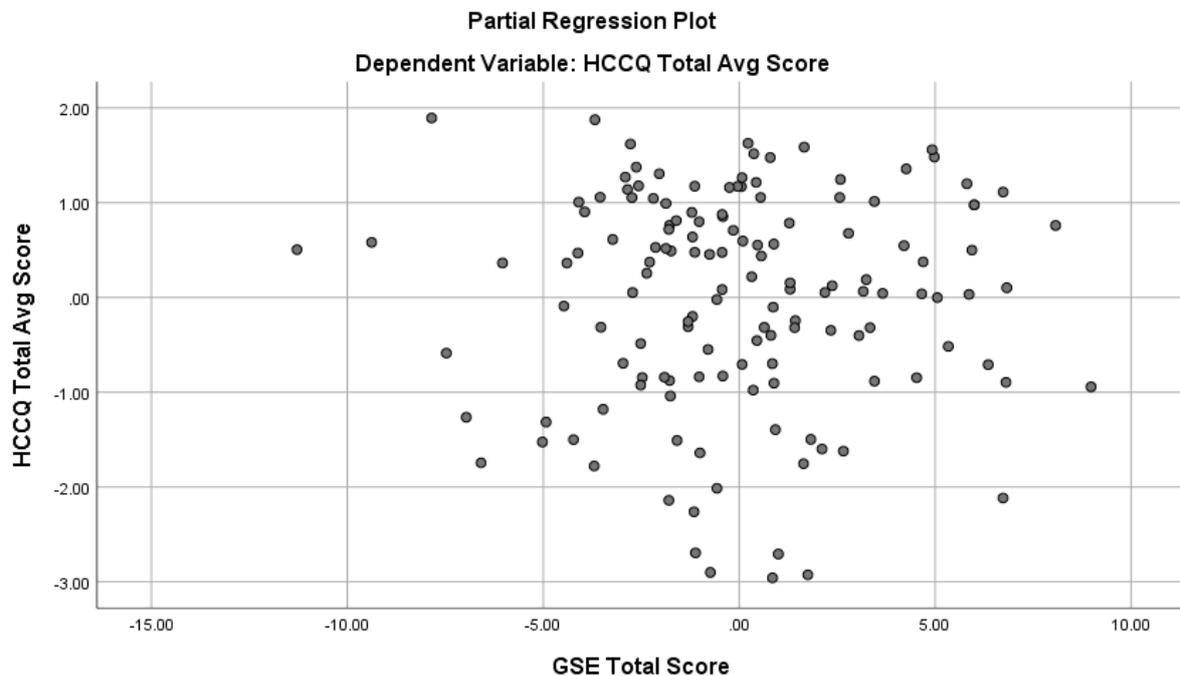


Figure 5: Scatter plot displaying health autonomy levels (HCCQ) across general self-efficacy (GSE) scores

3.3.4 Additional Analysis

Additional Analysis: Mental wellbeing and age range

A One-Way Between Groups Analysis of Variance (ANOVA) was run using dependent variable (DV) mental wellbeing scores (WHO5) across independent variable (IV) age range groups; 18 – 34, 35 – 50, 51 – 65 and 65+.

A one-way analysis of variance showed that there were significant differences in mental wellbeing scores (WHO5) between the 5 age range groups ($F(3, 168) = 4.52, p = .004$). More specifically TUKEY HSD post-hoc analysis highlighted that the 51 – 65 age group had significantly higher mental wellbeing scores than the 35 – 50 age group (Mean difference = 11.65, $p = .007$, CI [95%] 2.37, 20.93). Therefore, the null hypothesis can be rejected. Thus,

highlighting that women experience significantly higher levels of mental health wellbeing in the 51 – 65 age group than in the 35 – 50 age group. Differences in mental wellbeing (WHO5) scores across age groups are shown below (see figure 6).

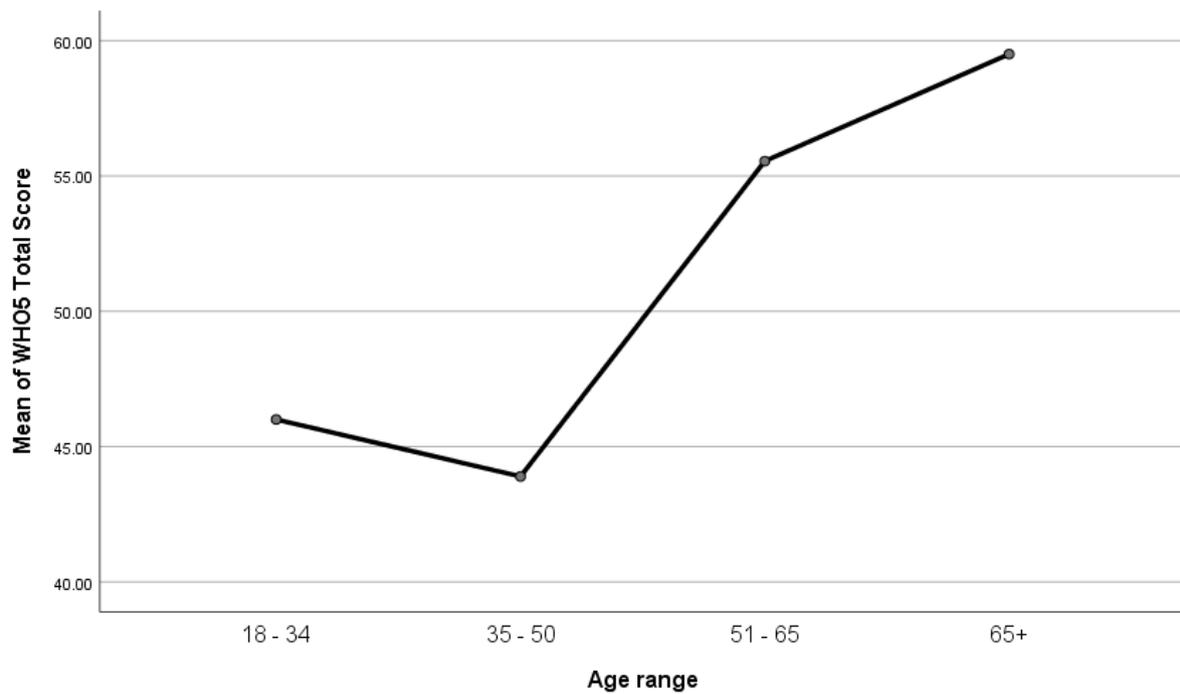


Figure 6: Means plot displaying mental wellbeing levels (WHO5) across age range groups

The means plot above (figure 6) illustrates that there is significantly higher health mental wellbeing (WHO5) scores in the 51 – 65 age group than in the 35 – 50 age group.

4. DISCUSSION

4.1 Interpretation

4.1.1 Aim of the study

The aim of this study is to connect the influence of General Practitioner (GP) gender concordance to women's health autonomy and subsequently their wellbeing. Furthermore, the study examines the component factors of wellbeing that influence women's sense of health autonomy.

4.1.2 Hypothesis 1 Findings

The study's initial hypothesis proposed that there would be a significant difference in women's sense of health autonomy between the female GP group and the male GP group. The results did not support this hypothesis as no significant difference was found. The present study's findings are contrary to previous research on gender concordance and health autonomy (Schieber et al., 2014) which suggested that autonomous health management is improved when female patients were under the advice of female GPs. This may be due to Schieber et al. (2014) focus on patient trust based on social proximity rather than this study's focus the patient's sense of autonomous based on concordant GP/patient partnership. Although the current research question was not supported in significance terms, the results show that the female GP group had higher levels of health autonomy than the male GP group; this partially aligns with previous evidence, such as the research of Wyatt et al. (2014) that proposed that female client / GP dyads showed improved shared decision making. Literature shows that there are less female clinic hours available in Ireland (HSE, 2015), interestingly the findings of the present research shows

that women are twice as likely to choose to attend a female GP for their general health care than a male GP. Although the findings do not support the hypothesis, the findings align to concerns regarding issues on GP training and implementation challenges on health autonomous and shared decision making approaches (Cullati et al., 2011). The results support the findings of Osamor and Grady (2016) study suggesting evidence of autonomous health in GP care is not conclusive as co-production in primary care services is an emergent topic and requires more research.

4.1.3 Hypothesis 2 Findings

The findings supported hypothesis 2 showing significant difference in wellbeing (positive affect, mental wellbeing and general self-efficacy) between women in the female GP group and women in the male GP group, however mental wellbeing and self-efficacy were shown as not significant individually and positive affect showed significance high scores in the male GP group. The present study's overall significant findings support cited research (Sandhu et al., 2009) that shows female / female GP patient dyads are more patient improving on biopsychosocial positive wellbeing outcomes. The individual results did not find significance, which is contrary to previous research (Shiels and Gabbay, 2006) that suggests the female gender concordance interpersonal approaches promote wellbeing; this may be due to the different approach and measures; the present study used psychological measures while Shiels and Gabby (2006) using occupational measures. The results of the presents study found significantly higher positive affect in the male GP group than the female GP group which are aligned to the contrary evidence that complex and individual factors that influence women's health responses go beyond interpersonal communication (Ramsey, 2017).

4.1.4 Hypothesis 3 Findings

Hypothesis 3 proposed that positive affect, mental wellbeing and general self-efficacy would be a significant predictor of women's sense of their health autonomy. The results support the overall hypothesis that all combined factors of positive affect, mental wellbeing and general self-efficacy do significantly predict women's sense of health autonomy, however no one individual factor predicted women's sense of health autonomy independently. The results support previously cited research by Serdiuk et al. (2018) that wellbeing factors are the most significant predictors of sense of autonomy. The current research used measures that supported previous research on the linkage of wellbeing constituents with autonomy (Mackay, et al., 2019; Serdiuk et al., 2018). The present study extended the hypothesis to predict women's health autonomy which aligns to previous research on positive wellbeing factors such as self-efficacy predicting patient empowerment and health autonomy (Náfrádi et al., 2017). The present study did not find the individual factors of positive affect, mental wellbeing or self-efficacy as independent predictors of health autonomy. This is contrary to previous research on predictors of autonomy including study's on positive affect and self-efficacy (Lemos et al., 2017; Tay et al., 2018). This may be due to the previous research focus on autonomy on learning and humanities rather than the current hypothesis focus on women's health autonomy.

4.1.5 Additional Findings

Additional analysis resulted in findings that showed that women experience significantly higher levels of mental health wellbeing in the 51 – 65 age group than in the 35 – 50 age group. The findings support previous research on late middle age and high levels of

mental wellbeing (Gupta, 2016). This aligns to the conclusion that the stresses of raising children, mortgages and career pressures of the 35 – 50 group of women are lessened in the 51 – 65 group while additionally supporting Brown et al. (2016) research in that positive health and attitude contributes to mental wellbeing of women of this age. Additionally, as Ireland is a liberal society, the findings support the study by Weinstein et al. (2018) that wellbeing is affected by socio-political factors such as civil rights and social equality.

4.2 Critical Evaluation

4.2.1 Limitations of the study

There are some limitations to note in the current study. The most significant limitation is the potential temporal gap between the participants GP visit and the time when the participant completed the survey. If for instance, the participant rarely visits the GP the time gap could be substantial resulting in less valid responses than those you might expect if the survey was conducted within the same day as the GP consultation. Secondly, the use of snowball sampling methods through online platforms uses friends and family to complete the survey and to pass on to their online connections. This may have resulted in participants coming from largely similar socio-economic, geographical and cultural backgrounds. The variation of responses may be representative of a limited cohort the total population of women residents of Ireland. Future research could use more timely methods to gather data closer to GP visits and to use a sampling method that would reach a wider more diverse sample.

4.2.2 Strengths of the study

There are a number of strengths to be noted in the study. The sample size of 174 valid responses was significant and provided a basis for robust analysis and strong reliability requirements as per Cohen's table. The psychometric measures used; HCCQ, PA, WHO5 and GSE all indicated strong internal reliability scores and performed well in the study; all were consistent scores from previous research. The methodology used in the study was rigorous and compliant to scientific and ethical standards. Importantly, the study's strength is in its uniqueness and current relevance by investigating a topic where there is very limited previous evidence and which has the potential to have impactful implications on Irish women's health and wellbeing in the future. The participants expressed a keen interest in the outcomes of the study.

4.2.3 Future Research

Future research should attempt to gather data in locations such as primary care centres and GP settings so to remove the temporal lag in GP experience and gather more timely responses. Combining GP and primary health care professionals into future research would add an interesting health provider perspective. Additional qualitative research would strengthen the evidence base by which future researchers could achieve a deeper analysis on the determinants of women's sense of health autonomy and wellbeing. Furthermore, future international research would be useful for knowledge sharing, dissemination and building statistical analysis broader than in solely the Irish context.

4.2.4 Implications and Applications

The implications of the current study are to address the limited volume of evidence that provides an assessment of the linkage between the influence of GP gender on women's sense of health autonomy in their general healthcare and their wellbeing specifically in the Irish context. Consequently, the focus on improved interpersonal skills, communication, co-design and biopsychosocial healthcare approaches can lead to higher levels of a women's wellbeing and better lifestyle behaviours such as smoking cessation, exercise and nutrition reducing chronic disease risk.

The findings of the current study should be applied to government funding decisions rebalancing budgets to both biopsychosocial preventative and biomedical therapeutic healthcare. Furthermore, medical education institutions can apply the study's findings in training programmes of healthcare professionals particularly GPs that focus on developing interpersonal skills and shared decision-making approaches in their practice. Additionally, the findings of the current study can be applied to future research on women's health and wellbeing in Ireland.

4.2.5 Conclusion

In conclusion, the current study explored doctor-patient gender concordance and its influence on women's health autonomy and wellbeing. It examined the factor of wellbeing and its components a) positive affect b) mental wellbeing and c) self-efficacy and their influence on women's health autonomy. Additional analysis examined age and mental wellbeing. The evidence provided in the study leads to the recommendation that GPs should improve health

autonomy skills to support the individual's full health status, not just physical health. The study supports government health policies and Irish GP training in interpersonal skills and patient centred care which in turn increases positive lifestyle choices, reduces health costs to the state and improves women's health outcomes in Ireland.

REFERENCES

- Abramo, G., D'Angelo, C. A., & Murgia, G. (2013). Gender differences in research collaboration. *Journal of Informetrics*, 7(4), 811–822. doi: 10.1016/j.joi.2013.07.002
- Adams, A., Buckingham, C. D., Lindenmeyer, A., McKinlay, J. B., Link, C., Marceau, L., & Arber, S. (2008). The influence of patient and doctor gender on diagnosing coronary heart disease. *Sociology of Health & Illness*, 30(1), 1–18. doi: 10.1111/j.1467-9566.2007.01025.x
- Ajzen, I. (1985). From Intentions to Actions: A Theory of Planned Behavior. In J. Kuhl & J. Beckmann (Eds.), *Action Control: From Cognition to Behavior* (pp. 11–39). doi: 10.1007/978-3-642-69746-3_2
- Akhtar, M., & Kroener-Herwig, B. (2019). Coping Styles and Socio-demographic Variables as Predictors of Psychological Well-Being among International Students Belonging to Different Cultures. *Current Psychology*, 38(3), 618–626. doi: 10.1007/s12144-017-9635-3
- Balliet, D., Li, N. P., Macfarlan, S. J., & Van Vugt, M. (2011). Sex differences in cooperation: A meta-analytic review of social dilemmas. *Psychological Bulletin*, 137(6), 881–909. doi: 10.1037/a0025354
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215. doi: 10.1037/0033-295X.84.2.191
- Bart, B., Wollersheim, H., Carlson, M., Roy, B., Jones, S., Hesselink, G., ... Johnson, J. (2019). Reframing healthcare services through the lens of Co-Production: Teaching health professionals to explore the link between patient care, coproduction, and the Social Quality Model. *International Journal of Integrated Care*, (4). doi: 10.5334/ijic.s3570

- Batalden, M., Batalden, P., Margolis, P., Seid, M., Armstrong, G., Opiari-Arrigan, L., & Hartung, H. (2016). Coproduction of healthcare service. *BMJ Quality & Safety*, *25*(7), 509–517. doi: 10.1136/bmjqs-2015-004315
- Bell, A. V., Michalec, B., & Arenson, C. (2014). The (stalled) progress of interprofessional collaboration: The role of gender. *Journal of Interprofessional Care*, *28*(2), 98–102. doi: 10.3109/13561820.2013.851073
- Bell, S. L., Audrey, S., Gunnell, D., Cooper, A., & Campbell, R. (2019). The relationship between physical activity, mental wellbeing and symptoms of mental health disorder in adolescents: A cohort study. *International Journal of Behavioral Nutrition & Physical Activity*, *16*(1), 1–12. doi: 10.1186/s12966-019-0901-7
- Brown, L., Bryant, C., Brown, V., Bei, B., & Judd, F. (2016). Self-compassion, attitudes to ageing and indicators of health and well-being among midlife women. *Aging & Mental Health*, *20*(10), 1035–1043. doi: 10.1080/13607863.2015.1060946
- Carrasco, A. E. R., Campbell, R. Z., López, A. L., Poblete, I. L., & García-Mas, A. (2013). Autonomy, Coping Strategies and Psychological Well-Being in Young Professional Tennis Players. *The Spanish Journal of Psychology*, *16*. doi: 10.1017/sjp.2013.70
- Chirkov, V. I., Ryan, R., & Sheldon, K. M. (2010). *Human Autonomy in Cross-Cultural Context: Perspectives on the Psychology of Agency, Freedom, and Well-Being*. New York: Springer Science & Business Media.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*, 155–159.
- Crawford, D., Paranjli, S., Chandra, S., Wright, S., & Kisuule, F. (2019). The effect of racial and gender concordance between physicians and patients on the assessment of

- hospitalist performance: A pilot study. *BMC Health Services Research*, 19(1), 247. doi: 10.1186/s12913-019-4090-5
- Cullati, S., Courvoisier, D. S., Charvet-Bérard, A. I., & Perneger, T. V. (2011). Desire for autonomy in health care decisions: A general population survey. *Patient Education and Counseling*, 83(1), 134–138. doi: 10.1016/j.pec.2010.04.025
- Curi, V. S., Haas, A. N., Alves-Vilaça, J., & Fernandes, H. M. (2018). Effects of 16-weeks of Pilates on functional autonomy and life satisfaction among elderly women. *Journal of Bodywork and Movement Therapies*, 22(2), 424–429. doi: 10.1016/j.jbmt.2017.06.014
- DBS (2019). DBS Ethical Guidelines for Research with Human Participants 2019. Retrieved from <https://elearning.dbs.ie/course/view.php?id=10644>
- Deci, E. L., & Ryan, R. M. (2008). Self-determination theory: A macrotheory of human motivation, development, and health. *Canadian Psychology/Psychologie Canadienne*, 49(3), 182–185. doi: 10.1037/a0012801
- Edwards, D., Turner, G. M., Virdee, S. K., & Mant, J. (2019). The role of the GP in managing suspected transient ischaemic attack: A qualitative study. *BMC Family Practice*, 20(1), 1–7. doi: 10.1186/s12875-019-0963-2
- Eggermont, D., Smit, M., Kwestroo, G. A., Verheij, R. A., Hek, K., & Kunst, A. E. (2018). The influence of gender concordance between general practitioner and patient on antibiotic prescribing for sore throat symptoms: A retrospective study. *BMC Family Practice*, 19(1). doi: 10.1186/s12875-018-0859-6
- Elwyn, G., Cochran, N., & Pignone, M. (2017). Shared Decision Making—The Importance of Diagnosing Preferences. *JAMA Internal Medicine*, 177(9), 1239–1240. doi: 10.1001/jamainternmed.2017.1923

- Fava, G. A., & Sonino, N. (2007). The Biopsychosocial Model Thirty Years Later. *Psychotherapy and Psychosomatics; Basel*, 77(1), 1–2.
- French, J., & Raven, B. (1959). The bases of social power. In D. Cartwright & A. Zander, *Group dynamics* (pp. 150-167). New York: Harper & Row.
- Gambrel, P. A., & Cianci, R. (2003). Maslow's Hierarchy of Needs: Does It Apply In A Collectivist Culture. *Journal of Applied Management and Entrepreneurship; Sheffield*, 8(2), 143–161.
- Garland, A. F., Deyessa, N., Desta, M., Alem, A., Zerihun, T., Hall, K. G., Goren, N., & Fish, I. (2018). Use of the WHO's Perceived Well-Being Index (WHO-5) as an efficient and potentially valid screen for depression in a low income country. *Families, Systems, & Health*, 36(2), 148–158. doi: 10.1037/fsh0000344
- Gleichgerricht, E., & Decety, J. (2013). Empathy in Clinical Practice: How Individual Dispositions, Gender, and Experience Moderate Empathic Concern, Burnout, and Emotional Distress in Physicians. *PLOS ONE*, 8(4), e61526. doi: 10.1371/journal.pone.0061526
- Greenwood, B. N., Carnahan, S., & Huang, L. (2018). Patient–physician gender concordance and increased mortality among female heart attack patients. *Proceedings of the National Academy of Sciences*, 115(34), 8569–8574. doi: 10.1073/pnas.1800097115
- Gupta, U. (2016). Age, Mental Health and Well-being. *Journal of Psychosocial Research*, 11(1), 147–156.
- Hall, J. A., Irish, J. T., Roter, D. L., Ehrlich, C. M., & Miller, L. H. (1994). Gender in medical encounters: An analysis of physician and patient communication in a primary care setting. *Health Psychology*, 13(5), 384–392. doi: 10.1037/0278-6133.13.5.384

- HSE (2015). GP Workforce Planning Report September 2015. Retrieved from https://www.icgp.ie/go/research/reports_statements?spId=9330497E-A202-B568-51A79BB91B3ADBFD
- Jerant, A., Bertakis, K. D., Fenton, J. J., Tancredi, D. J., & Franks, P. (2011). Patient-provider Sex and Race/Ethnicity Concordance: A National Study of Healthcare and Outcomes. *Medical Care, 49*(11), 1012–1020.
- Kasser, V. G., & Ryan, R. M. (1999). The Relation of Psychological Needs for Autonomy and Relatedness to Vitality, Well-Being, and Mortality in a Nursing Home¹. *Journal of Applied Social Psychology, 29*(5), 935–954. doi: 10.1111/j.1559-1816.1999.tb00133.x
- Keating, M., McDermott, A., & Montgomery, K. (2013). *Patient-Centred Health Care: Achieving Co-ordination, Communication and Innovation*. New York: Springer.
- Laroche, M., Roussel, P., Cury, F., & Boiche, J. (2019). Understanding the dynamics of physical activity practice in the health context through Regulatory Focus and Self-Determination theories. *PLoS ONE, 8*(8). doi: 10.1371/journal.pone.0216760
- Lee, D. (2019). A model for designing healthcare service based on the patient experience. *International Journal of Healthcare Management, 12*(3), 180–188. doi: 10.1080/20479700.2017.1359956
- Lee, Y.-Y., & Lin, J. L. (2010). Do patient autonomy preferences matter? Linking patient-centered care to patient–physician relationships and health outcomes. *Social Science & Medicine, 71*(10), 1811–1818. doi: 10.1016/j.socscimed.2010.08.008
- Lemos, A., Wulf, G., Lewthwaite, R., & Chiviawosky, S. (2017). Autonomy support enhances performance expectancies, positive affect, and motor learning. *Psychology of Sport and Exercise, 31*, 28–34. doi: 10.1016/j.psychsport.2017.03.009

- Mackay, L., Egli, V., Booker, L.-J., & Prendergast, K. (2019). New Zealand's engagement with the Five Ways to Wellbeing: Evidence from a large cross-sectional survey. *Kotuitui: New Zealand Journal of Social Sciences*, *14*(2), 230–244. doi: 10.1080/1177083X.2019.1603165
- Markus, H. R., & Schwartz, B. (2010). Does Choice Mean Freedom and Well-Being? *Journal of Consumer Research*, *37*(2), 344–355. doi: 10.1086/651242
- Milgram, S. (1963). Behavioral Study of Obedience. *Journal of Abnormal & Social Psychology*, *67*(4), 371.
- Náfrádi, L., Nakamoto, K., & Schulz, P. J. (2017). Is patient empowerment the key to promote adherence? A systematic review of the relationship between self-efficacy, health locus of control and medication adherence. *PLoS ONE*, *12*(10), 1–23. doi: 10.1371/journal.pone.0186458
- Nieuwboer, M., Perry, M., Sande, R. van der, Maassen, I., Rikkert, M., & Marck, M. V. der. (2017). It all comes down to trust; determinants for miscommunication in Primary Healthcare. *International Journal of Integrated Care*, *17*(5), A127. doi: 10.5334/ijic.3435
- Osamor, P. E., & Grady, C. (2016). Women's autonomy in health care decision-making in developing countries: A synthesis of the literature. *International Journal of Women's Health*, *8*, 191–202. doi: 10.2147/IJWH.S105483
- Parkinson, J., David, P., & Rundle-Thiele, S. (2017). Self-efficacy or PBC: Which influences consumers' physical activity and healthful eating behaviour maintenance? *Journal of Consumer Behaviour*, *16*(5), 413–423. doi: 10.1002/cb.1641

- Pickett-Blakely, O., Bleich, S. N., & Cooper, L. A. (2011). Patient–Physician Gender Concordance and Weight-Related Counseling of Obese Patients. *American Journal of Preventive Medicine*, *40*(6), 616–619. doi: 10.1016/j.amepre.2011.02.020
- Ramsey, E. M. (2017). Gender as a Consideration When Designing Health and Risk Messages. *Oxford Research Encyclopedia of Communication*. doi: 10.1093/acrefore/9780190228613.013.350
- Reis, H. T., Sheldon, K. M., Gable, S. L., Roscoe, J., Ryan, R. M. (2018). Daily well-being: The role of autonomy, competence, and relatedness. doi: 10.4324/9780203732496-13
- Russell, E., & Daniels, K. (2018). Measuring affective well-being at work using short-form scales: Implications for affective structures and participant instructions. *Human Relations*, *71*(11), 1478–1507. doi: 10.1177/0018726717751034
- Sandhu, H., Adams, A., Singleton, L., Clark-Carter, D., & Kidd, J. (2009). The impact of gender dyads on doctor–patient communication: A systematic review. *Patient Education and Counseling*, *76*(3), 348–355. doi: 10.1016/j.pec.2009.07.010
- Schieber, A.-C., Delpierre, C., Lepage, B., Afrite, A., Pascal, J., Cases, C., ... Kelly-Irving, M. (2014). Do gender differences affect the doctor–patient interaction during consultations in general practice? Results from the INTERMEDE study. *Family Practice*, *31*(6), 706–713. doi: 10.1093/fampra/cmu057
- Schwarzer, R., & Hallum, S. (2008). Perceived Teacher Self-Efficacy as a Predictor of Job Stress and Burnout: Mediation Analyses. *Applied Psychology*, *57*(s1), 152–171. doi: 10.1111/j.1464-0597.2008.00359.x

- Schwarzer, R., & Jerusalem, M. (1995). Generalized self-efficacy scale. In J. Weinman, S. Wright, & M. Johnston (Eds.), *Measures in health psychology: A user's portfolio* (pp. 35–38). Windsor: NFER-Nelson.
- Serdiuk, L., Danyliuk, I., & Chaika, G. (2018). Personal Autonomy as a Key Factor of Human Self-Determination. *Social Welfare Interdisciplinary Approach*, 8(1), 85–93. doi: 10.21277/sw.v1i8.357
- Sheeran, P. (2002). Intention—Behavior Relations: A Conceptual and Empirical Review. *European Review of Social Psychology*, 12(1), 1–36. doi: 10.1080/14792772143000003
- Shiels, C., & Gabbay, M. (2006). The influence of GP and patient gender interaction on the duration of certified sickness absence. *Family Practice*, 23(2), 246–252. doi: 10.1093/fampra/cmi110
- Shih, P., Rapport, F., Hogden, A., Bierbaum, M., Hsu, J., Boyages, J., & Braithwaite, J. (2018). Relational autonomy in breast diseases care: A qualitative study of contextual and social conditions of patients' capacity for decision-making. *BMC Health Services Research*, 18. doi: 10.1186/s12913-018-3622-8
- Shumway, D., Griffith, K. A., Jaggi, R., Gabram, S. G., Williams, G. C., & Resnicow, K. (2015). Psychometric properties of a brief measure of autonomy support in breast cancer patients. *BMC Medical Informatics and Decision Making*, 15. doi: 10.1186/s12911-015-0172-4
- Sniehotta, F. F., Pesseau, J., & Araújo-Soares, V. (2014). Time to retire the TPB. *Health Psychology Review*, 8(1), 1–7. doi: 10.1080/17437199.2013.869710

- Stebbing, J., Taylor, I. M., & Spray, C. M. (2015). The relationship between psychological well- and ill-being, and perceived autonomy supportive and controlling interpersonal styles: A longitudinal study of sport coaches. *Psychology of Sport and Exercise, 19*, 42–49. doi: 10.1016/j.psychsport.2015.02.002
- Tay, L., Pawelski, J. O., & Keith, M. G. (2018). The role of the arts and humanities in human flourishing: A conceptual model. *The Journal of Positive Psychology, 13*(3), 215–225. doi: 10.1080/17439760.2017.1279207
- The Psychological Society of Ireland (2011). Code of Professional Ethics of the PSI. Retrieved from: <https://www.psychologicalsociety.ie/footer/PSICode-of-Professional-Ethics-3>
- Topp, C. W., Østergaard, S. D., Søndergaard, S., & Bech, P. (2015). The WHO-5 Well-Being Index: A Systematic Review of the Literature. *Psychotherapy and Psychosomatics, 84*(3), 167–176. doi: 10.1159/000376585
- Twomey, M. (2012). Autonomy and reason: Treatment choice in breast cancer. *Journal of Evaluation in Clinical Practice, 18*(5), 1045–1050. doi: 10.1111/j.1365-2753.2012.01915.x
- Ubel, P. A., Scherr, K. A., & Fagerlin, A. (2017). Empowerment Failure: How Shortcomings in Physician Communication Unwittingly Undermine Patient Autonomy. *American Journal of Bioethics, 17*(11), 31–39. doi: 10.1080/15265161.2017.1378753
- Watson, D., Clark, L. A., & Teilegen, A. (1988). Development and Validation of Brief Measures of Positive and Negative Affect: The PANAS Scales. *Journal of Personality & Social Psychology, 54*(6), 1063–1070. doi: 10.1037/0022-3514.54.6.1063

- Weinstein, N., Legate, N., Al-Khouja, M., & Şengül, Şule. (2018). Relations of civil liberties and women's health satisfaction around the globe: The explanatory power of autonomy. *Journal of Health Psychology*, 1359105318810074. doi: 10.1177/1359105318810074
- WHO (1998). Five Well-Being Index (WHO-5). Retrieved from <https://www.corc.uk.net/outcome-experience-measures/the-world-health-organisation-five-well-being-index-who-5/>
- Williams, G. C., Freedman, Z. R., & Deci, E. L. (1998). Supporting Autonomy to Motivate Patients With Diabetes for Glucose Control. *Diabetes Care*, 21(10), 1644–1651. doi: 10.2337/diacare.21.10.1644
- Williams, G. C., Grow, V. M., Freedman, Z. R., Ryan, R. M., & Deci, E. L. (1996). Motivational predictors of weight loss and weight-loss maintenance. *Journal of Personality and Social Psychology*, 70(1), 115–126. doi: 10.1037/0022-3514.70.1.115
- Williams, G. C., Lynch, M. F., McGregor, H. A., Ryan, R. M., Sharp, D., & Deci, E. L. (2006). Validation of the “Important Other” Climate Questionnaire: Assessing Autonomy Support for Health-Related Change. *Families, Systems, & Health*, 24(2), 179–194. doi: 10.1037/1091-7527.24.2.179
- Wyatt, K. D., Branda, M. E., Inselman, J. W., Ting, H. H., Hess, E. P., Montori, V. M., & LeBlanc, A. (2014). Genders of patients and clinicians and their effect on shared decision making: A participant-level meta-analysis. *BMC Medical Informatics and Decision Making*, (1). doi: 10.1186/1472-6947-14-81
- Yu, S., Levesque-Bristol, C., & Maeda, Y. (2018). General Need for Autonomy and Subjective Well-Being: A Meta-Analysis of Studies in the US and East Asia. *Journal of Happiness Studies*, 19(6), 1863–1882. doi: 10.1007/s10902-017-9898-2

APPENDICES

APPENDIX A: Information and Consent Sheet

The effects of General Practitioner (GP) gender on women's sense of health autonomy and wellbeing

My name is Gráinne Clarke and I am conducting research in the Department of Psychology in Dublin Business School (DBS) that explores the effects of GP gender on women's sense of health autonomy and wellbeing. This research is being conducted as part of my studies and will be submitted for examination.

You are invited to take part in this study and participation involves completing and returning the attached anonymous survey. While the survey asks some questions that might cause some minor negative feelings, it has been used widely in research. If any of the questions do raise difficult feelings for you, contact information for support services are included on the final page.

Participation is completely voluntary and so you are not obliged to take part.

Participation is anonymous and confidential, please do not include your name on the questionnaire. Thus responses cannot be attributed to any one participant. For this reason, it will not be possible to withdraw from participation after the questionnaire has been collected.

The questionnaires will be securely stored and data from the questionnaires will be transferred from the paper record to electronic format and stored on a password protected computer. This research may be presented at the DBS student conference in March 2020.

It is important that you understand that by completing and submitting the questionnaire that you are consenting to participate in the study.

It is important that you understand that by completing and submitting the questionnaire that you are declaring you are female, over 18 years of age and a resident of Ireland.

Should you require any further information about the research, please contact Grainne Clarke, [REDACTED]@mydbs.ie. My supervisor can be contacted at [insert details].

Thank you for taking the time to complete this survey.

Gráinne

APPENDIX B: Demographic Questions

Please circle the relevant answer that applies to you.

Age: 18 – 34 / 35 – 50 / 51 – 65 / 65+

Employment status: Not employed / Part Time Employed / Full Time Employed

Level of education: 2nd Level (Secondary School) / 3rd Level / Post graduate

Relationship status: Single / In a relationship / Married / Other

Number of children: 0 / 1 / 2 / 3 / 4+

Gender of the GP you attend most regularly: Male / Female

Approximately, how many times do you visit your GP per year: 0 / 1 / 2 / 3 / 4 / 5+

APPENDIX C: Health Care Climate Questionnaire

HCCQ – Health Care Climate Questionnaire

Health Care Climate Questionnaire Perceived Autonomy Support

Please rate each statement from 1 – 7

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----------------------|------------------------|----------------------|---------|-------------------|---------------------|-------------------|
| Strongly disagree | Moderately disagree | Slightly disagree | Neutral | Slightly agree | Moderately agree | Strongly agree |

1. I feel that my health care practitioner has provided me choices and options about my health.

2. I feel my health care practitioner understands how I see things with respect to my health.

3. I am able to be open with my health care practitioner about my health. _____
4. My health care practitioner conveys confidence in my ability to make changes regarding my health. _____
5. I feel that my health care practitioner accepts me whether I follow their recommendations or not. _____
6. My health care practitioner has made sure I really understand my health risk behaviors and the benefits of changing these behaviors without pressuring me to do so. _____
7. My health care practitioner encourages me to ask questions. _____
8. I feel a lot of trust in my health care practitioner. _____
9. My health care practitioner answers my questions related to my health fully and carefully.

10. My health care practitioner listens to how I would like to do things regarding my health.

11. My health care practitioner handles my emotions very well. _____
12. I feel that my health care practitioner cares about me as a person. _____
13. I don't feel very good about the way my health care practitioner talks to me about my health.

14. My health care practitioner tries to understand how I see my health before suggesting any changes. _____
15. I feel able to share my feelings with my health care practitioner. _____

APPENDIX D: Positive Affect Negative Affect Schedule (PANAS)

Positive Affect Negative Affect Schedule (PANAS)

Please rate each item on how you felt in the past 2 weeks

| | <i>Indicate the extent you have felt this way over the past 2 weeks</i> | Very Slightly or not at all | A little | Moderately | Quite a bit | Extremely |
|----|---|-----------------------------|----------|------------|-------------|-----------|
| 1 | Interested | 1 | 2 | 3 | 4 | 5 |
| 2 | Distressed | 1 | 2 | 3 | 4 | 5 |
| 3 | Excited | 1 | 2 | 3 | 4 | 5 |
| 4 | Upset | 1 | 2 | 3 | 4 | 5 |
| 5 | Strong | 1 | 2 | 3 | 4 | 5 |
| 6 | Guilty | 1 | 2 | 3 | 4 | 5 |
| 7 | Scared | 1 | 2 | 3 | 4 | 5 |
| 8 | Hostile | 1 | 2 | 3 | 4 | 5 |
| 9 | Enthusiastic | 1 | 2 | 3 | 4 | 5 |
| 10 | Proud | 1 | 2 | 3 | 4 | 5 |
| 11 | Irritable | 1 | 2 | 3 | 4 | 5 |
| 12 | Alert | 1 | 2 | 3 | 4 | 5 |
| 13 | Ashamed | 1 | 2 | 3 | 4 | 5 |
| 14 | Inspired | 1 | 2 | 3 | 4 | 5 |
| 15 | Nervous | 1 | 2 | 3 | 4 | 5 |
| 16 | Determined | 1 | 2 | 3 | 4 | 5 |
| 17 | Attentive | 1 | 2 | 3 | 4 | 5 |
| 18 | Jittery | 1 | 2 | 3 | 4 | 5 |
| 19 | Active | 1 | 2 | 3 | 4 | 5 |
| 20 | Afraid | 1 | 2 | 3 | 4 | 5 |

APPENDIX E: WHO-5 Well-Being Index

WHO (Five) Well-Being Index (1998 version)**Terms of use**

The WHO-5 is free of charge and does not require permission to use.

Please indicate for each of the five statements which is closest to how you have been feeling over the last two weeks. Note that higher numbers mean better well-being.

| | <i>Over the last two weeks</i> | All of the time | Most of the time | More than half of the time | Less than half of the time | Some of the time | At no time |
|---|--|-----------------|------------------|----------------------------|----------------------------|------------------|------------|
| 1 | I have felt cheerful and in good spirits | 5 | 4 | 3 | 2 | 1 | 0 |
| 2 | I have felt calm and relaxed | 5 | 4 | 3 | 2 | 1 | 0 |
| 3 | I have felt active and vigorous | 5 | 4 | 3 | 2 | 1 | 0 |
| 4 | I woke up feeling fresh and rested | 5 | 4 | 3 | 2 | 1 | 0 |
| 5 | My daily life has been filled with things that interest me | 5 | 4 | 3 | 2 | 1 | 0 |

APPENDIX F: General Self-Efficacy Scale

GSE – General Self-Efficacy Scale

Please read the sentences below and select an answer for each statement which indicates how much the statement applies to yourself.

1 = **Not at all true** 2 = **Hardly true** 3 = **Moderately true** 4 = **Exactly true**

| | | |
|-----------|---|--|
| 1 | I can always manage to solve difficult problems if I try hard enough. | |
| 2 | If someone opposes me, I can find the means and ways to get what I want. | |
| 3 | It is easy for me to stick to my aims and accomplish my goals. | |
| 4 | I am confident that I could deal efficiently with unexpected events. | |
| 5 | Thanks to my resourcefulness, I know how to handle unforeseen situations. | |
| 6 | I can solve most problems if I invest the necessary effort. | |
| 7 | I can remain calm when facing difficulties because I can rely on my coping abilities. | |
| 8 | When I am confronted with a problem, I can usually find several solutions. | |
| 9 | If I am in trouble, I can usually think of a solution. | |
| 10 | I can usually handle whatever comes my way. | |

APPENDIX G: Debrief sheet

Debrief, thank you and support contacts

Thank you for participating in the study. If you feel any questions raised distress or emotional issues for you please consider talking to friends and family or contact the following supports:

Samaritans Ireland: free call 116123 or e-mail jo@samaritans

Aware: 1800 804848 or e-mail supportmail@aware.ie

If you would like any further information regarding this research, please contact research supervisor at xxxxxxxx or Grainne Clarke at xxxxxxxx

Thank you for contributing to this study.