

# Influence of Optimism & Resilience on Quality of Life & General Mental Health for Haemophilia patients.

Author: Brennan, F. Affiliations: Irish Haemophilia Society



## INTRODUCTION

The purpose of this quantitative, cross-sectional study was to explore the effects of medical diagnosis (severity level, family history etc), optimism levels, resilience and age on the level of perceived quality of life and psychological distress experienced by patients with haemophilia in Ireland. Haemophilia is a hereditary bleeding disorder primarily affected men. The purposive sample of 81 participants comprising of males ranging in age from 20 to 82 years, partook in an anonymous questionnaire, no treatment interventions were conducted. The SF-36, GHQ, LOT-r and BRS instruments were administered along with general demographic information relating to their bleeding disorder. No statistically significant correlation was found between bleeding disorder type or severity and QoL or psychological distress. Age and resilience were found to be positive predictors of QoL, similarly, age, resilience and optimism were found to be significant predictors of psychological distress. This may benefit tools for psychological interventions for patients.

## RESULTS

In relation to the tests applied participants (N = 81) scores ranged from 4 to 23 on the BRS scale (M = 14.69, SD = 4.18), maximum score on this test is 28. On the LOT-R scale measuring optimism participants scores ranged between 3 and 24 (M = 14.94, SD = 4.31), maximum score on this test is 24. On the GHQ scale measuring general mental health participants scores ranged from 6 to 33 (M = 12.72, SD = 5.98), as previously mentioned scores on the GHQ scale are typical between scores of 11 – 12. On the SF-36 Quality of Life survey participants scores ranged from 53 – 90 (M = 75.72, SD = 9.10), as previously mentioned SF-36 scores are rated from 0 – 100, 100 being optimum perceived health status. who do not). Multiple regression was performed to investigate the ability of age, resilience and optimism to predict the psychological distress (GHQ level) among patients with haemophilia. multiple linear regression analysis. The three independent variables explained 40% of variance in psychological distress  $F(3, 80) = 17.41, p < 0.02$ . All 3 predictors were significant, with optimism recording the highest Beta value ( $\beta = -.44, p = 0.00$ ) than resilience recording a Beta value ( $\beta = -.26, p = 0.14$ ), and lastly age recording Beta value ( $\beta = .23, p = 0.01$ ). Based on the severity level of the participants' haemophilia psychological distress was analysed using an ANOVA. Participants were split into three distinct groups according to their diagnosis – mild, moderate and severe. The results yielded no statistically significant relationship between the severity level of participant's haemophilia diagnosis and psychological distress. Interestingly, however, the mean scores for this variable were lowest amongst the severe patients.

## CONCLUSIONS

The significant findings in relation to the effect of resilience, optimism and age on quality of life and psychological distress levels may have some practical implications for clinical practices and theoretical implications for future research in the field. There are some interesting insights into psychological interventions that may be utilised as part of best practise for patients with haemophilia. Interventions in relation to increasing optimism and resilience levels may improve the quality of life and psychological distress levels for people with haemophilia. The research also posited that patients with severe haemophilia reported lower psychological distress than their mild / moderate counterparts. Future research may yield interesting results in relation to the coping mechanisms employed by people with severe haemophilia in comparison to their mild and moderate counterparts.

## METHODS

Participants were sought with varying severity levels of haemophilia (mild, moderate and severe) from the database of the Irish Haemophilia Society (I.H.S.). 81 surveys were received and completed to date (N = 81). The participants ranged in age from 20 to 82 years (M = 44.56, SD = 14.79). Participants with FVIII deficiency accounted for 84% (N = 68), participants with FIX deficiency accounting for 16% (N = 13) of the sample. The Brief Resilience Scale, which assesses the ability of an individual to bounce back or recover from a stressor, was administered (BRS; Smith et al, 2008). In order to measure the participant's levels of optimism, the Revised Life Orientation Test (LOT-R; Scheier, Carver, & Bridges, 1994) was administered. In order to assess participants over all general mental health the General Health Questionnaire-12 (GHQ-12; Goldberg & Williams, 1998) was administered. Finally in order to assess patient's quality of life the SF 36 Health Status (Ware et al., 2000) questionnaire was administered. Pearson correlation coefficients were also performed in advance of the regression analysis to ensure test assumptions are satisfied. Also, correlation analysis was conducted to ensure that the predictor variables were significantly correlated with the criterion variables, and that the predictor variables were not highly associated with each other this is in line with the assumptions of multicollinearity. Independent t-tests were performed to identify whether there were any comparisons between the means scores of the two distinct groups. One way between groups ANOVA's were conducted to identify differences between groups in relation to their effect on predictor variables. A number of standard multiple regression analyses were performed to identify whether the predictor variables can explain the various criterion variables under investigation, and to highlight the unique independent effect of each predictor on the criterion variables. The Bonferroni method was applied  $0.05 / 2, p = 0.03$ , and  $0.05 / 3, p = 0.02$  to both multiple regression models.



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Quality of Life  
Fiona Brennan

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