



It's good to talk: distress disclosure and psychological wellbeing

Mark Ward, Donna Tedstone Doherty, Rosalyn Moran

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Health Research Board
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Summary

This paper investigated the relationship between levels of distress disclosure and psychological wellbeing in the general population. Two measures of psychological wellbeing were used – the 12-item General Health Questionnaire (GHQ12) and a self-reported rating of participants' mental health in the previous 12 months. Distress disclosure was measured using a 12-item Likert scale called the Distress Disclosure Index. Distress disclosure was defined as an individual's willingness to disclose distressing personal information to others. A nationally representative sample of 2,711 adults aged 18 years and over living in private households in Ireland was surveyed. Four socio-demographic determinants of levels of distress disclosure were explored including gender, age, marital status and geographic location. The association between distress disclosure and psychological wellbeing was investigated. The Distress Disclosure Index was found to be a statistically valid, unidimensional measure. Statistically significant differences were found in levels of distress disclosure in terms of the four socio-demographic variables and significant correlations were found between levels of distress disclosure and psychological wellbeing. Those most willing to disclose distressing information to others were females and those in the younger age groups. Furthermore a greater willingness to disclose distressing information was related to better mental health. The findings have implications for the promotion of psychological health and wellbeing and help seeking behaviour.

Introduction

The purpose of this study is to examine the relationship between levels of distress disclosure and psychological wellbeing in the general population. The data analysed was sourced from the National Psychological Wellbeing and Distress Survey which was designed by the Health Research Board's (HRB) Mental Health Research Unit (MHRU). The Economic and Social Research Institute (ESRI) was commissioned to administer the questionnaire by telephone.

Distress disclosure refers to a person's willingness to disclose distressing personal information to others. Recognition of its importance derives from the fact that it has previously been shown to be an influence on an individual's psychological wellbeing with a greater willingness to disclose distressing personal information being associated with positive mental health (Ichiyama *et al.* 1992; Pennebaker, 1989, 1997; Cramer, 1999; Barry and Mizrahi, 2005; Hook and Andrews, 2005; Kahn *et al.* 2002). It is suggested that the willingness to disclose distressing information to others is a trait-like individual difference that remains stable over time and across situations (Kahn and Hessling, 2001). It is argued that the act of disclosing distressing information results in health benefits due to the reduction of psychological stress provided by confronting the stressor and the utilisation of supports to deal with the stressor (Pennebaker, 1997).

Within the therapeutic setting, a core aim of counsellors and therapists is the encouragement of disclosure from their clients. A greater willingness to disclose is considered to be beneficial in the healing process (Burnard and Morrison, 1992). In the case of those who experience particularly traumatic life events, Jaffe (1984) argues that in order to regain their sense of self the client needs to gradually disclose what has happened to them. In a study by Hook and Andrews (2005), it was found that after therapy, individuals who were low disclosers showed more depressive symptoms, as measured by the Beck Depression Inventory (BDI) than high disclosers. They also found that the non-disclosure of depression-related symptoms made a significant contribution to the individuals current symptoms (Hook and Andrews, 2005). These findings are supported by those of Kahn *et al.* (2002) who found that a prior tendency to disclose distressing information was related to a reduction in symptoms after counselling had ended. A modest negative correlation between distress disclosure and depressive symptoms was found by Kahn and Hessling (2001). Also, low scorers were shown to be actively concealing secrets which itself leads to psychological stress.

Numerous previous studies have found that both gender and age are strong determinants of one's willingness to disclose distressing personal information to others. In terms of age, previous work found that younger people are more likely to disclose than older people (Jourard, 1971; Hook and Andrews, 2005). Females have consistently been found to be more willing to disclose distressing information than males (Jourard and Lasakow, 1958; West, 1970; Jourard, 1971; Cozby, 1973; Kelly and Achter, 1995; Kahn and Hessling, 2001). One proposed explanation for this is that these gender differences have their basis in social norms. This argument states that the act of disclosing personal distressing information is a gender-typed behaviour which is seen to be more appropriate to females than to males (McMullan and Cross, 1983).

In order to quantify an individual's level of distress disclosure, previous studies have used a 12-item Likert scale, the Distress Disclosure Index (DDI; Kahn and Hessling, 2001, see Appendix 1). This scale is a self-reporting measure of one's tendency to conceal rather than disclose distressing personal information, with higher scores indicating greater disclosure. DDI scores have been shown to be positively related to an individual's psychological wellbeing (Kahn and Hessling, 2001) and a predictor of an individual's help-seeking behaviour (Kahn and Hessling, 2001; Kahn *et al* 2002; Barry 2002; Vogel and Wester, 2003; Ward, 2006). The scale is a unidimensional bipolar construct that represents the concealment (i.e. rare disclosure) and disclosure (i.e. rare concealment) of distressing personal information to others (Kahn and Hessling, 2001; Vogel and Wester, 2003).

The DDI scale was found to be positively correlated with self-disclosure, as measured by the Self-Disclosure Index (SDI; Miller, Berg and Archer, 1983); social support, as measured by the Social-Provisions Scale (SPS; Cutrona and Russell, 1987); extraversion, as measured by the Extraversion and Neuroticism subscales of the Five-Factor Inventory (FFI; Costa and McCrae, 1992) and positive affect, as measured by the Positive and Negative Affect Schedule (PANAS; Watson, Clark and Tellegen, 1988). These results illustrated that those who were more willing to disclose distressing information were also more willing to disclose personal information, had greater social support, were more extraverted and showed higher positive affect.

The DDI scale was found to be negatively correlated to Self-Concealment (Kahn and Hessling, 2001), which was measured using the Self-Concealment Scale (SCS; Larson and Chastain, 1990) and depressive symptoms, measured using the Centre for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977). These negative correlations support the hypothesis that low scorers on the DDI are more likely to withhold distressing personal information from others and are also more likely to score higher on measures of depression. Internal consistency for the final DDI scale was reported as between .92 and .95 (Study Three) by Kahn and Hessling (2001) and between .90 (Study Two) and .94 (Study one) by Vogel and Wester (2003).

To date there has been little information on disclosure of psychological distress within a representative sample of the general population and the effects of socio-demographic information variables on DDI scores. Previous research has been carried out on college students and thus do not represent the general population. Given the extent of psychological distress in the general population (Tedstone Doherty *et al.*, in press) and the likely benefits of disclosure both within the therapeutic and non-therapeutic settings, it is important to identify those most willing to disclose and the factors that influence distress disclosure. This study attempted to add to our current knowledge by examining disclosure at the population level and the influence of age, gender, marital status and geographic location on the willingness to disclose distressing information.

The specific objectives of this study are to:

- test the dimensionality of the Distress Disclosure Index
- investigate levels of distress disclosure in the general population
- investigate the socio-demographic determinants of distress disclosure
- determine if there is a correlation between distress disclosure and respondent's self-rated mental health
- determine if distress disclosure is related to respondents' psychological wellbeing as measured by the 12-item General Health Questionnaire (GHQ 12).

Method

The data for this study was based on the HRB National Psychological Wellbeing and Distress Survey (Doherty, Moran, Walsh, Kartalova-O'Doherty, forthcoming) – a biennial study initiated in 2005. The study measures levels of psychological wellbeing and distress in a random sample of the Irish adult population and explores determinants and correlates of same. Help seeking behaviour for mental, nervous or emotional problems, primary care and mental health service usage, rated effectiveness of services and willingness to use services were among the related areas explored. Where possible the present research used question formulations employed in previous Irish (ESRI Living in Ireland Survey 1994–2001; Mental Health Association of Ireland, 2001; McGee, 2005) and international Goldberg *et al* (1997) studies thus affording comparison of present findings with extant work and exploration of the validity and reliability of measures.

This study was included as a module of the ESRI's monthly Consumer Survey - a monthly telephone survey carried out on behalf of the European Commission (EC). The Consumer Survey interviews approximately 1,300 people in Ireland every month. It records details of attitudes and opinions towards recent economic trends as well as perceptions of likely future trends in the Irish economy.

A randomly selected, nationally representative sample of 2,711 respondents was surveyed. Data was collected in three phases, the first in December 2005, the second in January 2006 and the third in April 2006. All respondents were aged 18 years and over and were living in private households in the Republic of Ireland. An initial set of random clusters (or sampling areas) was selected from the GeoDirectory, which provides a comprehensive list of private households in the Republic of Ireland. It is compiled jointly by Ordnance Survey Ireland and An Post (the national postal service). The initial sample of areas was then used to generate a random telephone sample using Random Digit Dialling (RDD).

The final sample was re-weighted using a calibration technique called the minimum information loss algorithm (Gomulka 1992, 1994). The weighting scheme was designed to adjust the sample distributions for a number of key variables to the corresponding population distributions. Population figures were taken from the Quarterly National Household Survey conducted by the Central Statistics Office (CSO) using a sample of 30,000 cases. The variables used for re-weighting were age by gender (five age categories); age by marital status; region; number of adults in the household; gender by principal economic status, and level of education by two age categories. This procedure resulted in a nationally representative sample of persons aged 18 years and over living in private households in the Republic of Ireland.

Procedures and Ethics

A protocol was developed and agreed with the ESRI which guided survey administration and interviewing procedure. At the beginning of each interview, the interviewer introduced him/herself, the study and the organisations involved. The interviewer provided the interviewee with an interviewer ID number and with a contact name and telephone number in the ESRI. The purpose and content of the study was then explained. Finally, interviewers asked for informed consent to proceed with the interview. Instructions to interviewees in relation to the mental health module stressed the confidentiality and anonymity of the survey; at this point the interviewees were again requested to give informed consent to participate in the HRB module of the survey. The interviewer specified that the data was being collected for research purposes only and that participants were free to stop the interview at any time. The survey received ethical approval from the HRB's Research Ethics Committee (REC). Standard procedures were put in place in the unlikely event that a respondent became distressed during the interview. The interviewer asked the respondent if they had someone to talk to and also advised them to attend their general practitioner for help. In the case that the interviewee asked for a specific contact number, the interviewer provided them with the details of a number of services which the respondent could contact for assistance; these agencies were the Samaritans, GROW and Aware. The agencies were informed of the survey and that the contact details of their organisation may be provided to respondents.

Measures

The HRB National Psychological Wellbeing and Distress Survey had access to key background information on respondents including socio-demographic status. For the purpose of this study, four socio-demographic variables have been chosen for analysis. These are gender, age, marital status and geographic location. Previous research had found that these variables related significantly to an individual's willingness to disclose distressing information.

Two standardised measures which were included in the HRB's National Psychological Wellbeing and Distress Survey have been used here. These are the Distress Disclosure Index and the 12-item General Health Questionnaire (see Appendix 2). The Distress Disclosure Index is a 12-item Likert scale that measures an individual's willingness to disclose distressing personal information. The DDI contains six positive and six negative items. Each of the items is scored from one to five, giving a possible maximum score of 60.

The GHQ 12 is a much-used measure of psychological wellbeing; it has high validity and it is not influenced by gender, age or level of education (Goldberg *et al* 1997). The GHQ 12 can be scored using either a bimodal method or a Likert scoring system. As the Likert scoring system has been shown to be the optimum one to use when the aim is to assess the severity of psychological distress (Goldberg *et al.* 1997), it was the system chosen for this study. The Likert scoring method results in a score ranging from 0-36 and it can be broken down for interpretation into five categories. A score of 1-10 indicates 'low psychological distress'; 11-12 is 'typical'; 13-15 is 'more than typical'; 16-20 shows 'evidence of psychological distress'; scores over 20 indicate 'severe distress' (Goldberg *et al.* 1997).

Also included was a subjective measure of respondents self-perceived mental health status in the previous 12 months. This was a single-item question which asked 'how would you rate your mental health in the past 12 months?'. Interviewees were asked to give one of five responses which ranged from 'very poor' to 'very good'. This question was included in the analysis in order to ascertain if there was a correlation between levels of distress disclosure and how respondents rated their mental health.

Participants

A total of 5,678 individuals were contacted successfully and were eligible to participate in the survey. Of these, 2,711 completed the questionnaire, resulting in a response rate of 47.7%. Males accounted for 49.2% (n = 1,334) of respondents and females accounted for 50.8% (n = 1,377). In terms of age 29.3% (n = 794) were aged between 18 and 29 years, 37% (n = 1,003) were aged 30 to 49 years, 19.3% (n = 523) were aged between 50 and 64 years. The remaining 14.4% (n = 391) of respondents were aged 65 years or older. Almost half of the respondents, 49.2% (n = 1,333) reported being married while over one third, 36.3% (n = 985) reported having never married. Of the remainder 3.9% (n = 105) were living with a partner; 7.2% (n = 196) were widowed; 2.5% (n = 68) were separated and 0.9% (n = 25) were divorced.

Finally, 30.6% (n = 828) of the respondents reported that they lived in an 'open countryside' location. One quarter of respondents (25.9%, n = 703) lived in a town with a population greater than 1,500; 23.1% (n = 626) lived in Dublin city and county; 10.3% (n = 278) lived in a city other than Dublin (Galway, Limerick, Cork, Waterford) and 7.6% (n = 206) lived in a village with a population between 200 and 1,499. Information on the geographic location of 70 respondents (2.6%) was unavailable.

Analysis

Independent-sample t-tests and ANOVAs were used to explore between-group differences. Correlations between scale variables were analysed using Pearson's correlation. Where possible, measures of effect size statistics have been used. Multiple regression techniques were used to investigate the relationship between predictor variables and the dependent variable.

Results

The 12 items on the DDI scale were subjected to Principal Components Analysis with Varimax (Orthogonal) rotation using SPSS. Prior to performing the Principal Components Analysis the suitability of the data for factor analysis was assessed. The Kaiser–Meyer–Olkin (KMO) value was 0.95; this exceeds the recommended acceptable value of 0.6 (Kaiser, 1974). Bartlett's Test of Sphericity (Bartlett, 1950) reached statistical significance ($p < 0.001$). Both of these methods are indicators of the strength of the relationship among the variables (items) contained in the Likert scale and the results presented here support the use of factor analysis. One factor with an Eigen value above 1 was extracted; this explained 53.2% of the variance. Cattell's (1966) Scree test also suggested that only one factor should be extracted. These results again support the findings of earlier studies e.g. Kahn and Hessling (2001) which maintain that the DDI is a unidimensional construct. When the DDI was tested for internal reliability, a Cronbach's Alpha value of 0.92 was reported. This finding was similar to that of previous studies (Kahn and Hessling, 2001; Vogel and Wester 2003).

Using an independent samples t-test it was found that there was a statistically significant gender difference in level of distress disclosure as measured by the DDI. Males (Mean = 36.47, SD = 8.66, $n = 1334$) scored lower than females (Mean = 40.60, SD = 8.31, $n = 1375$) on the DDI [$t(2694.131) = -12.656$, $p < 0.001$]. The Eta squared value of 0.056 indicates that these differences were relatively weak, with 5.6% of the variance in levels of distress disclosure explained by gender.

In order to facilitate the use of one-way analysis of variance the age categories were recoded into larger more meaningful groupings. These groupings were 18–29 years, 30–49 years, 50–64 years and 65 years and over. Having done this, the result of the Levene's test of homogeneity of variance was still significant ($p < 0.05$) and so the Kruskal–Wallis (K independent samples) non-parametric test was used. It was found that there were statistically significant differences between the four age groups in levels of distress disclosure [$\chi^2(3) = 104.166$, $p < 0.001$]. The 18–29 years age group were the most willing to disclose distressing personal information to others (Mean = 40.72, $n = 794$, SD = 8.28) and the 65 years and older age group had the lowest mean score of 36.36 ($n = 390$, SD = 8.84). The 30–49 years age group had a mean DDI score of 38.49 ($n = 1003$, SD = 8.86) and the 50–64 years age group had a mean score of 37.06 ($n = 523$, SD = 8.33). Figure 1 shows levels of distress disclosure by age category for males and females.

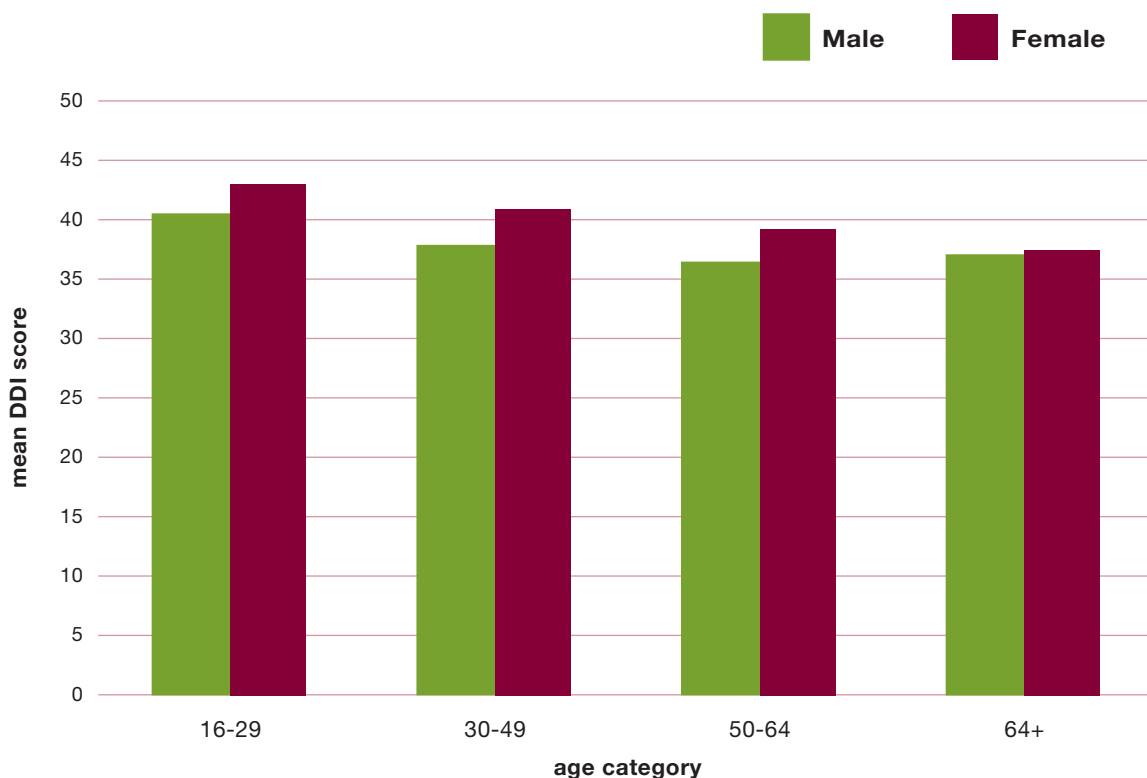


Figure 1 Mean DDI scores by age category and gender

In Table 1 the mean DDI scores of respondents in terms of marital status are shown. Statistically significant differences in levels of distress disclosure were found between the various marital status categories [$F(5, 2703) = 8.04, p < 0.001$]. Post-hoc comparisons using Tukey's Honestly Significantly Different (HSD) post-hoc test showed that the largest difference was between respondents who were living with partners (Mean = 41.08, $n = 105$, $SD = 8.86$) and those who were divorced (Mean = 33.39, $n = 25$, $SD = 9.99$). The value for Eta squared was 0.015, which was weak; marital status explained only 1.5% of the variance in levels of distress disclosure (Cohen, 1998).

Table 1 Number of participants grouped by marital status by mean DDI score and standard deviation

	Number of Participants	Mean DDI Score	Std. Dev
Married	1333	38.17	8.73
Living with partner	105	41.08	8.86
Separated	68	36.94	8.87
Widowed	196	36.83	8.77
Divorced	25	33.39	9.99
Never married	983	39.41	8.51

In order to compare gender and marital status, the marital status variable was reduced to three categories – single, married or cohabiting and separated / widowed / divorced. A 2 (gender) x 3 (marital status) ANOVA showed a significant main effect of gender ($F(1, 2634) = 66.44, p = 0.000$) and marital status ($F(2, 2634) = 15.98, p = 0.000$). As shown above, females were more likely to disclose distressing information than males and those who were single or living with someone were more likely to disclose than those who were separated, widowed or divorced. However there was also a significant interaction of gender by marital status ($F(2, 2634) = 3.862, p = 0.02$) see Figure 2). As can be seen from the graph there were no gender differences evident in those who were separated, widowed or divorced. For females, being separated, widowed or divorced had a large effect on the willingness to disclose. On the other hand within the male group, marital status did not affect willingness to disclose distressing information.

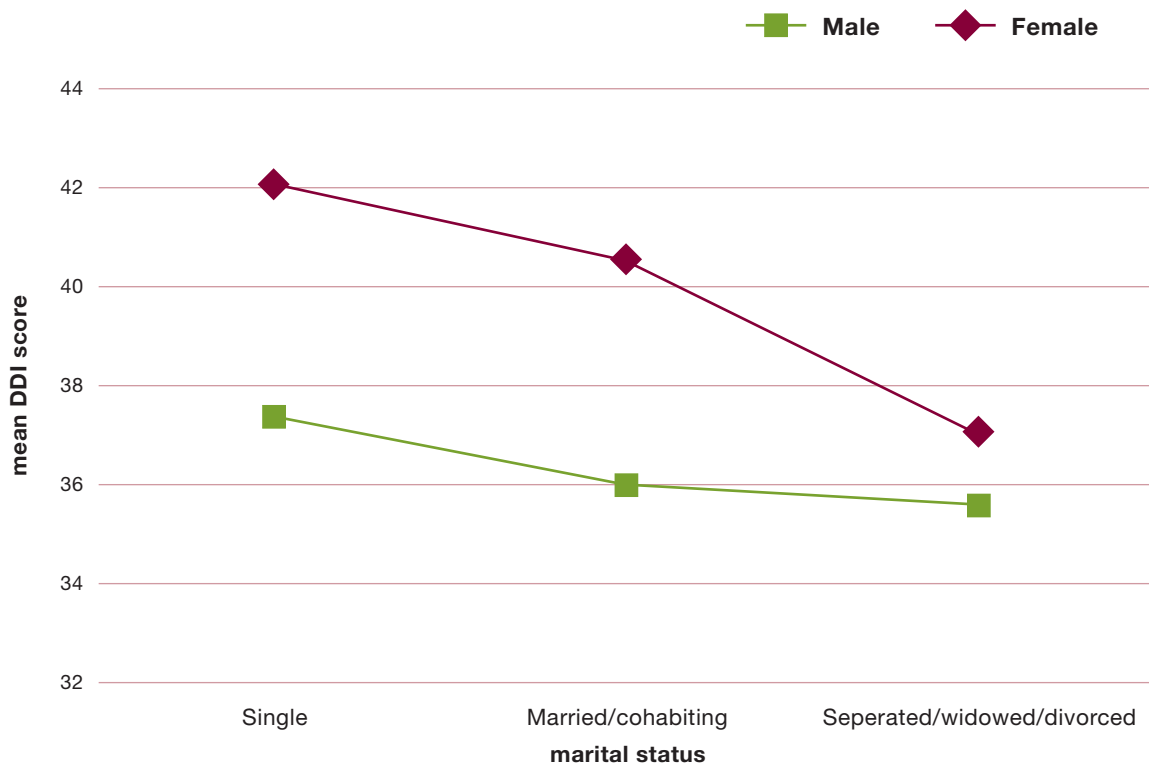


Figure 2 Mean DDI score by gender and marital status

The next stage of the analysis involved comparing respondents' levels of distress disclosure across five categories, each determined by the location in which the respondents were living. The five location categories were 'Dublin city and county', 'Other city' (Waterford, Limerick, Galway, Cork), 'Town' (population of 1,500 persons and over), 'Village' (population of between 200 and 1,499 persons) and 'Open countryside'. It was not possible to use an ANOVA technique as the Levene's test of homogeneity of variance was significant ($p < 0.001$). Instead, the Kruskal–Wallis (K independent samples) non-parametric test was used. It was found that there were statistically significant differences between the location categories in levels of distress disclosure [$\chi^2(4) = 43.77, p < 0.001$]. Although there were statistically significant differences, the largest difference, which was between those living in 'Dublin city and county' (Mean = 39.82, SD = 8.19) and those living in 'open countryside' (Mean = 37.17, SD = 9.08), was quite small.

A stepwise multiple regression analysis was performed to build a predictive model of levels of distress disclosure based on four socio-demographic variables – gender, age, marital and geographic location. Before beginning this analysis preliminary work was carried out in order to ensure that there were no violations of the assumptions of sample size, multicollinearity, linearity, outliers, homoscedasticity and normality. The final model is shown in Table 2 and contained both the gender and age variables. This model accounted for 9% (8.9% adjusted) of the variance in levels of distress disclosure which was significantly greater than zero [$F(2, 2707) = 133.4, p < 0.001$].

Table 2 Stepwise multiple regression model of 'level of distress disclosure' based on gender, age, marital status and geographic location

	B	B	Sr²	
Gender	4.233*	.242	.056	Final R= .300*
Age	-1.588*	-.184	.034	R2 = .090
Intercept = 35.649*				Adjusted R2= .089
				*p<.001

The relationship between levels of distress disclosure and respondents subjective rating of their mental health in the previous 12 months was examined. Using Pearson's correlation it was found that there was a significant positive relationship between the two ($r = 0.186$, $n = 2701$, $p < 0.001$). Higher levels of distress disclosure were associated with better mental health as rated by the respondents themselves. The Coefficient of determination showed that the two variables shared 3.5% of variance ($r^2 = 0.035$).

There was a statistically significant negative correlation found between level of distress disclosure and GHQ 12 scores ($r = -0.112$, $n = 2607$, $p < 0.001$). Using the Likert scoring method, those who scored higher on psychological distress, as measured by the GHQ 12 scored lower in levels of distress disclosure. The coefficient of determination ($r^2 = 0.013$) showed that the two variables shared 1.3% of variance. This is a very weak correlation (Cohen, 1988).

Discussion and conclusion

The findings from the factor analysis undertaken here show that the DDI is indeed a unidimensional construct. This supports the findings of the DDI's authors, Kahn and Hessling (2001). The DDI has been shown here to be statistically reliable; it has a high Cronbach's Alpha which is similar to the reliability reported in previous studies (Kahn and Hessling, 2001; Vogel and Wester 2003). These results are important for the development of the DDI as it is the first known instance of its use in a large sample of the general population. Previously, the DDI scale was used with largely homogenous samples of undergraduate university students (Kahn and Hessling, 2001; Kahn *et al*, 2002; Vogel and Wester 2003). In future, those who wish to utilise this measure can proceed with some confidence as to its suitability for use with large general population samples.

The current research also supports the findings of earlier work which found both gender (Jourard and Lasakow, 1958; West, 1970; Jourard, 1971; Cozby, 1973; Kelly and Achter, 1995; Kahn and Hessling, 2001) and age (Jourard, 1961; Hook and Andrews, 2005) to be important determinants of a respondent's willingness to disclose distressing information to others. In line with earlier findings, females were found to be more willing to disclose distressing personal information than males. There may be a cultural explanation for these gender differences. Traditionally discussing personal problems would have been seen as behaviour more appropriate to females than to males – asking for help when faced with psychological problems is often perceived as a weakness (McMullan and Cross, 1983).

Younger respondents were found to be more willing to disclose than older respondents. As expected, the mean DDI score for the four age categories decreased steadily, with younger respondents showing a greater willingness to disclose than older respondents. One possible explanation for this may be that, compared with the older respondents, the younger respondents may have had greater exposure to formal education (Fischer and Cohen, 1972). This argument is supported by more recent findings which showed that there was a positive correlation between time spent in education and levels of distress disclosure (Ward, 2006). When the issue of gender was examined in conjunction with age it was found that, as co-determinants, they could be used to predict a small but statistically significant amount of variability in an individual's willingness to disclose distressing personal information.

In terms of respondents marital status it was found that those living with partners had the highest levels of distress disclosure. Respondents who had been divorced were the least willing to disclose distressing personal information. However there were also gender differences within marital status. While marital status had a large affect on the willingness to disclose distressing information on the female group, the male group did not show differences in the willingness to disclose distressing information by marital status. In other words, females who were separated, divorced or widowed were much less likely to discuss distressing information with others than females who were married, cohabiting or single. However for males there were no significant differences in marital status and the willingness to disclose distressing information.

Although statistically significant differences in levels of distress disclosure were found in terms of the geographic location where respondents were living, these differences were small. It was found that those respondents living in large urban centres (i.e. Dublin, Galway, Cork, Limerick or Waterford) had, on average, slightly higher DDI scores than those living in rural areas, those living in towns with over 1,499 inhabitants, or those living in villages. The group with the lowest DDI scores were living in rural locations.

Levels of distress disclosure have been shown to be positively correlated to individual psychological wellbeing (Ichiyama *et al* 1992; Pennebaker, 1989, 1997; Cramer, 1999; Barry and Mizrahi, 2005; Hook and Andrews, 2005; Kahn *et al* 2002). Higher levels of distress disclosure are associated with psychological wellbeing and lower levels of distress disclosure are associated with poorer mental health. It is thought that disclosing distressing information increases psychological wellbeing by providing a means with which to confront the stressor and also by encouraging the use of supports either within a formal or informal setting (Pennebaker, 1997). Two measures of respondents mental health were used in this paper. The first of these was a subjective measure whereby respondents were asked to rate their own mental health over the previous 12 months. As with earlier findings it was found that those respondents who showed a greater willingness to disclose distressing information, as measured by the DDI, tended to report better mental health. The second measure of respondents psychological wellbeing used was the GHQ 12. Those respondents who showed evidence of psychological distress tended to score lower on the DDI than those who did not show evidence of psychological distress. Using the Likert scoring system those respondents categorised as showing 'severe psychological distress' scored lower on the DDI scale than those in the other categories. It is also noteworthy that the maximum DDI score of respondents was far lower for the 'severe psychological distress' category than for any of the other categories. Interestingly, there was a stronger correlation between respondent's perceived mental health over the previous 12 months and their current mental health, measured by the GHQ 12. This finding shows the DDI may be

a better predictor of an *individuals* perceived psychological wellbeing in the previous year than it is of *current* psychological wellbeing. Kahn and Hessling (2001) argue that distress disclosure is a relatively stable concept. Would those who score higher on the DDI seek help for psychological problems earlier than those who are less willing to disclose distressing information? Further research is needed to investigate the relationship between distress disclosure and objective help seeking behaviour for distress. Furthermore there is a need to construct models of distress disclosure to identify the predictors and mediating factors and the relationship of distress disclosure to psychological health.

These findings have important implications for policy and service planning. There is a need to create a society that encourages the disclosure of distress. The National Psychological Wellbeing and Distress Survey (Tedstone Doherty *et al.*, 2007) showed that a significant number of the Irish adult population are experiencing psychological distress that would most likely benefit from some form of support, be it informal as in family and friends to formal support from health services. Furthermore a survey by the National Office for Suicide Prevention showed that many people would not want others to know if they were experiencing a psychological problem, highlighting the stigma associated with mental health problems (NOSP, 2007). There is a need to recognise the extent of psychological distress in the population and to reduce the stigma associated with psychological problems by encouraging distress disclosure not just in therapeutic settings, but also in non-therapeutic settings. There is also a need to research the influence of social and environmental contexts that promote and facilitate disclosure. The Samaritans have recently launched an initiative, called Deal (Developing Emotional Awareness and Learning) which is aimed specifically at encouraging young people in secondary schools to disclose their problems; the Samaritans' programme includes a resource pack aimed at both teachers and students (<http://www.samaritans.org/know/deal/index.html>). Programmes such as these need to be evaluated and, if effective, rolled out on a national basis and extended to include all age groups in various settings. The National office of Suicide Prevention is currently in the process of designing a mental health awareness and attitudes campaign, which will hopefully go some way in reducing the negative perceptions of mental health problems.

The findings have implications for those working in the community, such as community workers, teachers and youth workers, who may be in a position to influence a wide range of individuals and their understanding of mental health issues and provide information on possible sources of informal and formal support. This would enable individuals to recognise a potential problem at an earlier stage and also to seek support where necessary, before it developed into a more serious situation. It is important to note that not all individuals may require formal treatment within the health care system and that initiatives that provide support in the community are required. The general practitioner plays an important role in the detection, assessment and treatment of mental health problems (Tedstone Doherty *et al.*, 2007). However the over-reliance on medication has been highlighted, as has the lack of professionals that provide a range of psychological therapies (Department of Health and Children, 2006). There is a need to provide training within general practice on mental health issues and also to provide a range of professionals whom the general practitioner can access. For those who may require the support of specialised mental health services there is a need to improve the referrals pathway between primary and secondary health care.

It has not been an aim of this study to establish a causal relationship between distress–disclosure and psychological wellbeing. Whether it is a case that a greater willingness to disclose distressing information leads to psychological health benefits, or whether psychological wellbeing leads to a greater willingness to disclose distressing information can only be speculated upon. Based on what is known of previous results it is likely that the former is the case. In order to establish the direction of the relationship it would be necessary for future research to include a temporal aspect.

Conclusions

The Distress Disclosure Index is a statistically reliable, unidimensional measure of one's willingness to disclose distressing personal information to others.

Females are more willing to disclose distressing information than males. Respondents willingness to disclose is greater among younger people than among older people. In terms of location, those living in urban areas show a slightly greater willingness to disclose than those from rural areas. Being divorced is associated with a reluctance to disclose whereas those living with a partner show the greatest willingness to disclose.

Levels of distress disclosure are correlated with positive psychological wellbeing as measured both by the GHQ 12 and by respondents subjective self–rating of their mental health in the 12 months prior to being interviewed. This is important in that it clearly illustrates the importance of encouraging individuals to discuss personally distressing information as this can have a positive effect on their psychological wellbeing.

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<http://www.samaritans.org/know/deal/index.html>

Appendices

12-item Distress Disclosure Index (Kahn and Hessling, 2001)

1. When I feel upset I usually confide in my friends.
2. I prefer not to talk about my problems.
3. When something unpleasant happens to me, I often look for someone to talk to.
4. I typically don't discuss things that upset me.
5. When I feel depressed or sad, I tend to keep those feelings to myself.
6. I try to find people to talk with about my problems.
7. When I am in a bad mood, I talk about it to my friends.
8. If I have a bad day, the last thing I want to do is talk about it.
9. I rarely look for people to talk to when I am having problems.
10. When I am distressed I don't tell anyone.
11. I usually seek out someone to talk to when I am in a bad mood.
12. I am willing to tell others my distressing thoughts.

(Items 2, 4, 5, 8, 9 and 10 are reverse scored)

