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The Relationship Between Social Dysfunctioning and Psychopathology among Primary Care Attenders

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The extent of social dysfunctioning and its relationship to psychological disorders among Dutch primary care patients was examined. Social dysfunctioning in these patients was rather limited, but was more pronounced in patients with a psychological disorder than in those without. Disabilities were largely restricted to the occupational and social roles, with family role functioning and self-care relatively intact. Social dysfunctioning was moderately related to psychopathology, with higher levels of dysfunctioning in more severe and depressed cases. The extent of social dysfunctioning among patients with both anxiety and depression was similar to that of patients with a single diagnosis of depression. Depressed patients had a similar level of dysfunctioning to non-psychotic psychiatric out-patients. Analyses regarding the effects of diagnosis and severity on social dysfunctioning revealed considerable overlap between these two aspects of psychopathology. This study supports the need for a simultaneous but separate assessment of psychopathology and social dysfunctioning. However, future research should incorporate additional predictors of social dysfunctioning (e.g. personality, life events, long-term difficulties, physical disorders), and prospective studies should be conducted to clarify the temporal sequences of symptom severity, diagnosis, and comorbidity on the one hand, and social dysfunctioning on the other.

Since World War II, there has been increasing interest in the relationship between psychopathology and social (dys)functioning. In the 1960s, prevention and treatment of mental disorders in the community became more important, and hence the need for evaluation of programmes with the patient's adjustment to normal, everyday life as the central topic (DeJong *et al*, 1986). Since then, various instruments have been developed for the assessment of social (dys)functioning (Weissman, 1975; Kane *et al*, 1984; Platt, 1985; Sturt & Wykes, 1987; Wing, 1989), and a great number of scientific reports have been published (e.g. Cooper *et al*, 1970; Paykel *et al*, 1973; Kedward & Sylph, 1974; Weissman *et al*, 1978; Dohrenwend *et al*, 1981; Hurry & Sturt, 1981; Van Valkenburg, 1984; Angst & Dobler-Mikola, 1985; Bronisch *et al*, 1985; Casey *et al*, 1985; Arrindell *et al*, 1986; DeJong *et al*, 1986; Murphy *et al*, 1986; Coryell *et al*, 1988; Hecht & Wittchen, 1988; Bronisch & Hecht, 1989, 1990; Hecht *et al*, 1989, 1990). Recognition of the importance of social (dys)functioning led to a special axis for its assessment in DSM–III (American Psychiatric Association, 1980).

Initially, the level of social dysfunctioning was believed to be merely an epiphenomenon of psychopathology (Winokur *et al*, 1969), conveying no additional information to that derived from measurement of psychopathology alone. However, empirical research has shown that psychopathology and social dysfunctioning are relatively independent manifestations of a mental disorder, both cross-sectionally and longitudinally. Cross-sectional correlations range from weak (Blumenthal & Dielman, 1975; Dohrenwend *et al*, 1983; DeJong *et al*, 1986; Staal *et al*, 1989) to moderate (Weissman *et al*, 1978; Serban & Gidynski, 1979; Hurry & Sturt, 1981; Pai & Kapur, 1982; Casey *et al*, 1985), and differ according to diagnostic category (Hurry & Sturt, 1981; Hecht & Wittchen, 1988). In a longitudinal perspective, social dysfunctioning tends to have a less favourable and more protracted course than psychopathology (Paykel & Weissman, 1973; Bothwell & Weissman, 1977; Platt *et al*, 1981; Waryszak, 1982; DeJong *et al*, 1986). Social dysfunction has also been identified as a predictor of relapse in depression (Tanner *et al*, 1975) and chronic schizophrenia (Curson *et al*, 1985). Furthermore, social dysfunctioning seems to increase the risk of developing a secondary depression among patients with anxiety (Hecht *et al*, 1989) and patients with schizophrenia (Serban, 1979; Serban & Gidynski, 1979). Social dysfunctioning appears to play a role in help-seeking behaviour (Hurry & Sturt, 1981) and referral (Casey *et al*, 1985). Finally, social dysfunctioning seems to react to different

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types of interventions than those designed for the treatment of psychopathological symptoms (Bothwell & Weissman, 1977; Platt *et al*, 1981). In summary, recent findings advocate a simultaneous but separate assessment of psychopathology and social (dys)functioning for treatment selection, prognosis and treatment evaluation.

We examined social dysfunctioning associated with psychopathology among primary care patients. With the exception of the studies by Cooper *et al* (1970), Kedward & Sylph (1974), and Casey *et al* (1985), no such studies are available. However, these studies are restricted to relatively small samples of chronic, conspicuous cases. The present study does not suffer from these restrictions, because data were collected from a representative sample of both conspicuous and hidden cases. It is not self-evident that findings from the community or from psychiatric patients can be extrapolated to primary care patients (Dohrenwend *et al*, 1983). Firstly, impaired functioning may influence help-seeking and selection into treatment (Dohrenwend *et al*, 1983). Secondly, the nature and range of mental disorders that prevail among primary care patients may differ from those seen in community samples or among psychiatric patients. Finally, stigmatisation attached to patient status might cause social dysfunctioning (Link, 1982) – a factor that is absent among primary care patients suffering from a mental disorder.

Interest in the relationship between psychopathology and social dysfunctioning among primary care patients stems from several sources. Mental disorders presenting in primary care are relatively common and therefore of considerable public health interest (Von Korff *et al*, 1987, Barrett *et al*, 1988; Blacker & Clare, 1988; Ormel *et al*, 1990). To the extent that social dysfunctioning is related to these disorders, an important social problem is defined (Wells *et al*, 1989). The second source is more theoretical. A substantial proportion of mental disorders among primary care patients do not fit into the existing psychiatric classification systems. These are often referred to as "ill-defined mental disorders" (Barrett *et al*, 1988; Blacker & Clare, 1988; Ormel *et al*, 1990). Knowledge about the social dysfunctioning associated with these disorders may add to the efforts to delineate their nature.

The aim of this study is twofold: firstly, to estimate the level of social dysfunctioning associated with mental disorders among primary care patients and, secondly, to examine the relationship between psychopathology and social dysfunctioning in this population. With regard to the second aim, two issues receive special attention. Firstly, some studies have shown that functioning in different roles is uncorrelated (Dohrenwend *et al*, 1981); psychopathology may be associated with functioning in some roles more than others (Blumenthal & Dielman, 1975; Brown & Davidson, 1978). Therefore, we decided to examine functioning in specific roles, as well as a unidimensional variable. Secondly, some studies use correlations as indicators of the relationship between social dysfunctioning and psychopathology. This implies that the most important element in the relationship is severity. Yet other dimensions of the disorder may be important, so we examined two additional aspects of psychopathology: chronicity and nature of the disorder.

Method

The study took place between September 1985 and May 1987 in the northern part of the Netherlands. A full account of the design can be found in Wilmink (1989), Ormel *et al* (1990), and Brink *et al* (1991).

To select patients, a three-stage sampling procedure was used, which, including response rates, is outlined in Fig. 1.

At Stage 1, a stratified sample of 25 general practitioners (GPs) was drawn from all GPs in the city of Groningen and some surrounding towns (total population 275 000)– representative of the Dutch GP population with regard to their basic attitude towards family medicine (Wilmink *et al*, 1989).

Each GP then recruited all patients aged between 16 and 65 years who came for a consultation (index consultation) during a 10-day period. Patients who had been in the practice for less than one year were excluded. A total of 2237 patients were sampled. During the index consultation, GPs filled out a standard form regarding the patient and gave the patient the 30-item General Health Questionnaire (GHQ; Goldberg, 1972) to fill out at home and post back to the research department (response rate 89%). Using a cut-off point of five on the GHQ, patients were classified as a GHQ case (GHQ+) or non-case (GHQ–). On the standard form, GPs indicated whether they diagnosed a mental health problem (MHP) in the patient during the 12 months before the index consultation. A positive response rendered the patient as an 'old' ($n=544$) and a negative one as a 'new' patient ($n=1450$). GPs also indicated on the standard form whether the index consultation was because of a mental health problem. A positive response rendered the patient a GP case (GP+), a negative one, a GP non-case (GP–).

Both 'new' and 'old' patients were cross-classified according to their GP (GP+/GP–) and GHQ (GHQ+/GHQ–) caseness status, and different sampling proportions applied to the eight resulting groups (see Fig. 1). This resulted in a sample of 256 'new' patients and 36 'old' patients.

Within one week of the index consultation, interviews were administered by trained clinical psychologists or physicians. These included the Present State Examination (PSE; Wing *et al*, 1974), the Groningen Social Disabilities Schedule (GSDS; Wiersma *et al*, 1988, 1990), and a short semistructured interview.

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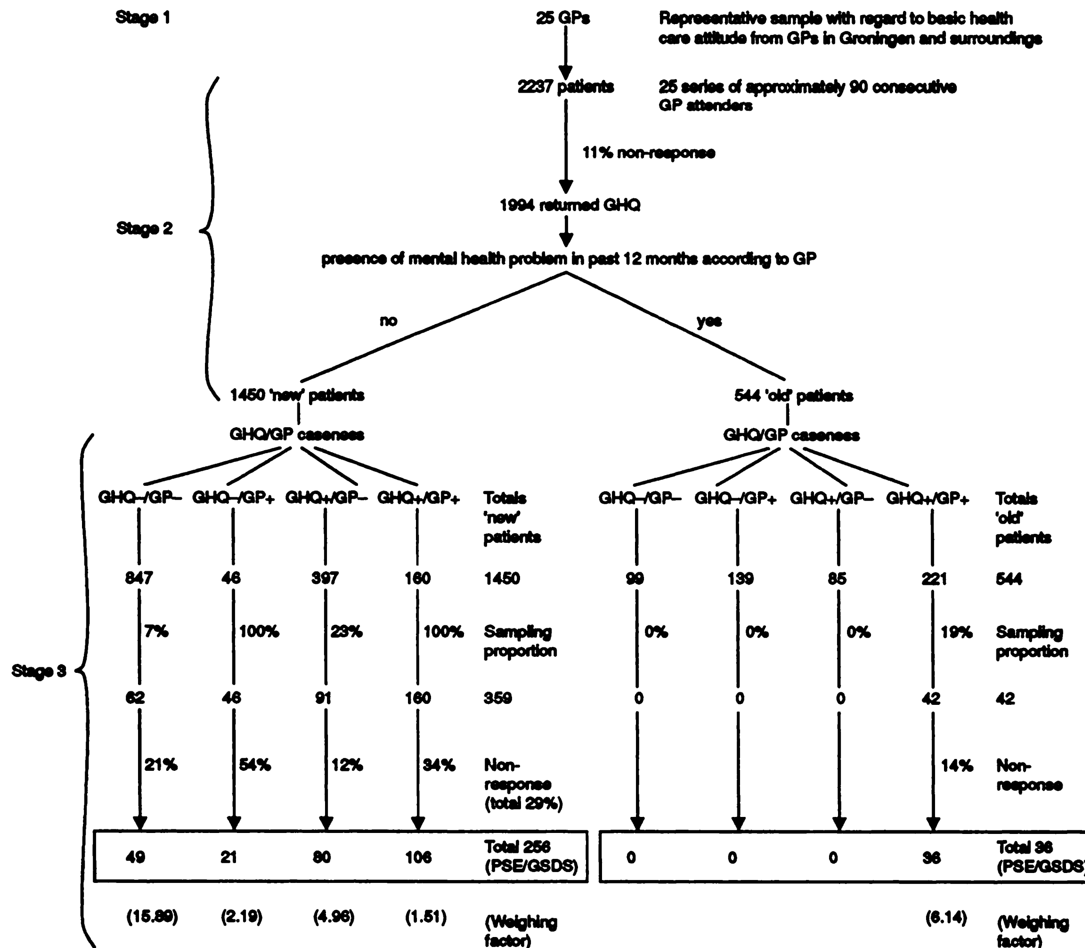

Fig. 1 The selection of GPs and patients.

The PSE data were used to construct various measures: PSE total score (PSETOT), PSE Index of Definition (PSEID; Wing & Sturt, 1978), and a Bedford College (BC) diagnosis. The latter is a psychiatric classification system developed by Finlay-Jones *et al* (1980). It includes eight diagnostic categories: depression, borderline depression, anxiety, borderline anxiety, and four comorbidity groups of (borderline) depression with (borderline) anxiety. An additional diagnostic category was created for ill-defined mental disorders (IMD) that do not meet the minimum criteria for a BC diagnosis, but represent significant psychopathology. PSETOT is a simple sumscore that takes into account the total number and severity of PSE symptoms. PSEID is a weighted sumscore ranging from 1 to 8 that also takes into account the specificity of the symptoms and indicates the probability of the presence of a specific psychological disorder. PSETOT and PSEID were used as indicators for the severity of psychopathology.

The GSDS is a standardised semistructured interview that measures social dysfunctioning in eight roles during the four weeks before the interview. Within the framework of the GSDS, social disability refers to a deficiency in the ability to perform activities and behave as expected in the context of a well defined social role. The deficiency can be inferred from violations of, or deviations from, norms and expectations as these prevail within the relevant reference group. The deficiency should not result from personal or social circumstances that are beyond the control of the individual (restrictions in freedom of action). We used a revised version of the GSDS in which scores on each role range from 0 (no disability), through 1 (some disability), to 2 (marked or severe disability). In this paper we limit our analyses to four roles (self-care, family, social, and occupational), and their sum index (range 0–8). Self-care primarily refers to the attention paid to the way one presents oneself in daily contacts with others. In the

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Table 1
Social dysfunctioning among GP attenders: mean (s.e.) scores in sampling groups and weighted means for all 'new' and 'old' patients

	GP–/GHQ– (n=49, wt=0.58)	GP+/GHQ– (n=21, wt=0.03)	GP–/GHQ+ (n=80, wt=0.27)	GP+/GHQ+ (n=106, wt=0.11)	All 'new' patients, weighted mean	'Old' GP+/GHQ+ (n=36)
GSDS						
Total score	0.43 (0.10)	0.67 (0.22)	0.79 (0.13)	1.49 (0.13)	0.65 (0.07)	1.53 (0.26)
Self-care	0.04 (0.03)	0.10 (0.07)	0.04 (0.02)	0.08 (0.03)	0.05 (0.02)	0.08 (0.05)
Family	0.04 (0.03)	0.00 (0.00)	0.06 (0.03)	0.15 (0.04)	0.06 (0.02)	0.17 (0.07)
Social	0.25 (0.06)	0.33 (0.11)	0.42 (0.06)	0.54 (0.07)	0.33 (0.04)	0.58 (0.12)
Occupation	0.10 (0.04)	0.24 (0.12)	0.27 (0.06)	0.73 (0.08)	0.22 (0.03)	0.69 (0.13)

framework of the GSDS, family is defined as a unit of cohabitation that comprises at least two people, including the respondent. Family role functioning is evaluated in terms of participation and contribution to the economic independence of the family. The social role refers to the quality and frequency of contacts between the respondent and people outside the family and professional situations. Finally, the occupational role refers to daily activities at work (gainful employment, volunteer work, housekeeping), activities directed at securing a job in the future (school, studies, job applications), and structured leisure-time activities. Analyses revealed that the four roles constitute a Mokken scale, in that they are cumulative and unidimensional (Loevingers $H>0.50$; Mokken & Lewis, 1982; DeJong & Molenaar, 1987).[1]

During the semistructured interview, patients were asked about their health complaints. These could be classified into three categories: psychological symptoms, physical symptoms which are probably an expression of stress or psychological disorder (somatising), and pure physical symptoms. History of health problems was assessed for psychological symptoms (the first category) or, if these were not present, for the second category. Four categories of history were thus established: (a) recent onset (within 12 months of index consultation); (b) chronic onset (more than 12 months before the index consultation) with recent exacerbation; (c) chronic onset with no recent exacerbation, and (d) no psychological disorder.

In analysing the data, the structure of the sample needs to be taken into account, that is, the fact that it is a stratified sample and not a simple random sample. This presents some restrictions in the kind of statistics that can be used. Thus, instead of calculating correlations between functioning and psychopathology we had to calculate weighted means for various subgroups and then compare these means. In regression analyses, the stratification was taken into account by introducing an extra predictor dummy variable that represents the stratification variable – the GHQ/GP groups.

Results

Table 1 shows the extent of social dysfunctioning among GP attenders. The first four columns display the simple means and standard errors in the four sampling groups of 'new' patients. The fifth column presents the weighted means and standard errors of all 'new' patients based on the sampling weights. The results for the one subgroup of 'old' patients are presented in the sixth column. As Fig. 1 indicated, sampling from the 'old' patients was done from only one subgroup (i.e. the GP+/GHQ+ subgroup). This limits our ability to estimate the extent of social disability among this group.

Most mean scores in Table 1 are between 0 (no disability) and 1 (some disability). The higher scores are observed in the social and occupational roles (rows 4 and 5) with hardly any disabilities in the self-care and family roles (rows 2 and 3). Thus the total score (row 1) consists mainly of the former two roles. The columns in Table 1 reveal a trend among the sampling groups. Scores increase as one moves from the group least likely to be cases (the GHQ–/GP– group) to the group most likely to be cases (the GHQ+/GP+ group). This trend is observed for the total GSDS score as well as for the social and occupational roles and is significant at $P=0.01$. Disabilities of patients in the 'old' GP+/GHQ+ group are very similar to those in the group of 'new' GP+/GHQ+ patients.

In examining the relationship between social functioning and psychopathology we limited our analyses to 'new' patients. We examined the relationship between social functioning and various aspects of psychopathology, namely its chronicity, its severity, and its diagnostic category. No relationship with chronicity was found. Tables 2 and 3 present the relationship between social functioning and both the severity of the disorder and diagnosis. Means and standard errors were adjusted using the sampling weights.

Table 2 indicates that severity of dysfunction in the social and occupational roles and of GSDS total score increases with severity of the disorder as measured by PSEID. F tests for linearity revealed that these trends are significant for the total score ($F=72.52$, $P<0.01$), for the social role ($F=27.68$, $P<0.01$), for the occupational role ($F=60.39$, $P<0.01$), and for the family role ($F=15.41$, $P<0.01$). The F tests were performed on the simple means and are thus stricter tests since the standard errors of the simple means are larger than those of the weighted means.

Table 3 examines the relationship of social dysfunctioning with diagnosis. Observing the first row, an interesting

1. A Mokken scale can be described as a non-parametric version of a Rasch scale or as a stochastic variation of a cumulative Guttman scale.

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Table 2
Weighted mean (s.e.) GSDS scores according to severity of the disorder as measured by PSE-ID for new patients only

	ID[1] = 1 (n = 53)	ID = 2 (n = 63)	ID = 3 (n = 39)	ID = 4 (n = 33)	ID = 5 (n = 50)	ID = 6 (n = 13)	ID = 7 (n = 5)
Total score	0.34 (0.12)	0.53 (0.13)	0.67 (0.18)	0.87 (0.23)	1.62 (0.15)	2.00 (0.65)	3.00 (0.63)
Self-care	0.01 (0.01)	0.04 (0.04)	0.01 (0.01)	0.05 (0.04)	0.24 (0.05)	0.10 (0.07)	0.00 (0.00)
Family	0.08 (0.05)	0.01 (0.01)	0.01 (0.01)	0.07 (0.04)	0.13 (0.05)	0.32 (0.18)	0.40 (0.24)
Social	0.18 (0.07)	0.27 (0.08)	0.40 (0.11)	0.51 (0.17)	0.66 (0.08)	0.68 (0.35)	1.20 (0.20)
Occupation	0.07 (0.04)	0.20 (0.07)	0.26 (0.10)	0.25 (0.09)	0.59 (0.08)	0.90 (0.31)	1.40 (0.40)

1. ID = Index of Definition.

Table 3
Weighted mean (s.e.) GSDS scores among various research diagnostic groups–new patients only

	None (n = 117)	IMD[1] (n = 24)	BA[2] (n = 47)	A[3] (n = 4)	BD[4] (n = 10)	BD + A (n = 4)	BD + BA (n = 13)	D + BA (n = 14)	D[5] (n = 16)	D + A (n = 7)
Total score	0.46 (0.09)	0.62 (0.21)	0.80 (0.20)	1.00 (0.28)	1.04 (0.44)	1.11 (0.16)	1.47 (0.26)	2.14 (0.48)	2.29 (0.35)	2.74 (0.68)
Self-care	0.03 (0.02)	0.00 (0.00)	0.09 (0.08)	0.00 (0.00)	0.19 (0.19)	0.00 (0.00)	0.06 (0.06)	0.14 (0.10)	0.31 (0.18)	0.00 (0.00)
Family	0.05 (0.03)	0.03 (0.02)	0.02 (0.02)	0.00 (0.00)	0.06 (0.06)	0.16 (0.16)	0.17 (0.08)	0.21 (0.11)	0.31 (0.18)	0.46 (0.30)
Social	0.25 (0.05)	0.44 (0.20)	0.42 (0.10)	0.84 (0.32)	0.43 (0.21)	0.48 (0.28)	0.48 (0.20)	0.93 (0.20)	0.71 (0.09)	1.00 (0.58)
Occupation	0.14 (0.04)	0.15 (0.05)	0.27 (0.07)	0.16 (0.16)	0.36 (0.14)	0.48 (0.28)	0.76 (0.24)	0.86 (0.21)	0.97 (0.12)	1.28 (0.34)

1. IMD = Ill-defined mental disorder.
2. BA = Borderline anxiety.
3. A = Anxiety.
4. BD = Borderline depression.
5. D = Depression.

pattern appears. The diagnostic groups have been arranged empirically in order of increasing disability to depict this pattern. Thus, it appears that those with depression suffer from significantly more social disability than any other group, regardless of whether depression is accompanied by anxiety or borderline anxiety. Within the total group with depression, no significant differences exist between the groups with and without coexisting (borderline) anxiety. In other words, depression seems to override borderline depression and (borderline) anxiety with regard to social disability. This effect seems to result mainly from the relationship between diagnosis and dysfunctioning in the occupational role.

In all, the findings show that social dysfunctioning is related to both diagnosis and severity. This pattern raises the question of whether these relationships are independent or whether one results from the other. In order to answer this question we performed two regression analyses in which severity (indicated by either PSEID or PSE total score) and diagnosis (indicated by the Bedford College diagnosis), compete in explaining the variance in social dysfunctioning (GSDS total score). We wanted to test whether severity can add to the explained variance in social dysfunctioning after diagnosis is entered and whether diagnosis can add to the explained variance in social dysfunctioning after severity is entered. In order to control for the stratification variable we entered it first into the regression equation. When PSEID was entered before diagnosis, diagnosis did not add significantly to the explained variance by PSEID alone (23% v. 28%). A similar result was obtained when the sequence was reversed: PSEID did not add significantly to the variance explained by diagnosis (27% v. 28%). When PSE total score was entered before diagnosis, diagnosis did not add significantly to the variance explained by PSE total score (28% v. 32%). When the sequence was reversed, PSE total score added significantly to the variance explained by diagnosis (27% v. 32%). These findings reflect the inter-relatedness of the concepts and measures of severity and diagnosis in explaining the variance of social dysfunctioning.

Discussion

Our first aim was to estimate the extent of social dysfunctioning among GP patients. Because of our sampling procedure we were able to make such estimation only with regard to 'new' patients, that is, patients who, according to their GP, had no mental health problems during the past year. The extent of social dysfunctioning in this group as a whole is rather limited. However, social dysfunctioning increased with the probability of the presence of a psychological disorder. Furthermore, our data indicate that dysfunctioning in various roles is relatively uncorrelated with increasing dysfunctioning in the role of self-care, through the family role, to the social and the occupational roles. Similar hierarchies have been observed by

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DeJong *et al* (1985), DeJong & Molenaar (1987) and Wiersma *et al* (1988). These findings corroborate the notion of increments in disabilities, beginning in peripheral social circles around the patient (occupational role, social role) and, while increasing in severity, progressing more and more towards the immediate surroundings (family role) and the person involved (role of self-care).

Our second aim was to clarify the relationship between various aspects of psychological disorders and social dysfunctioning. The level of social dysfunctioning was not related to chronicity of the psychological disorder (also Hurry & Sturt, 1981). There was, however, a clear relationship between severity of the psychological disorder in terms of the PSEID and the extent of social dysfunctioning. A similar finding has been reported by Casey *et al* (1985) in their study of GP attenders with conspicuous psychiatric morbidity. Furthermore, the level of social dysfunctioning was related to diagnosis, with better functioning of anxiety cases than depressive cases. This finding is consistent with previous observations in community cases (Sturt, 1981; Hurry & Sturt, 1981; Hecht & Wittchen, 1988; Hecht *et al*, 1990), GP attenders with conspicuous psychiatric morbidity (Casey *et al*, 1985), and psychiatric out-patients (Hurry & Sturt, 1981). Among patients with (borderline) depression, disability was not significantly related to the simultaneous presence of (borderline) anxiety. A similar conclusion can be drawn from the studies of Murphy *et al* (1986) and Hecht *et al* (1990) among community cases and from the study of Bronisch & Hecht (1990) among psychiatric in-patients. However, Hecht *et al* (1990) and Bronisch & Hecht (1990) refine their conclusions, stating that cases suffering simultaneously from *severe* depression and *severe* anxiety were significantly more impaired in their social functioning than severely depressed patients with only *mild* anxiety symptoms.

To date, there are five other studies that have used the GSDS for the assessment of social dysfunctioning (Asselbergs, 1989; Staal *et al*, 1989; Schreurs, 1990; Kraaijkamp, 1991; Tholen, 1991). A comparison of our results with the findings of these studies shows that the extent of social dysfunctioning of GP attenders with a depression (with or without (borderline) anxiety) is very similar to that of non-psychotic psychiatric out-patients, but less severe than that of psychotic out-patients, psychiatric in-patients, and psychiatric patients living in sheltered homes. Social dysfunctioning of patients with borderline depression, (borderline) anxiety or ill-defined mental disorder is less severe. The relatively low level of social dysfunction in patients with an ill-defined mental disorder neither corroborates nor falsifies the validity of this new diagnostic category.

Finally, our analyses regarding separate and combined effects of diagnosis (BC) and severity (PSEID, PSETOT) on social dysfunctioning revealed considerable redundancy between these two aspects of psychopathology in explaining the level of social dysfunctioning. This finding reflects the inter-relatedness of the concepts and measures of diagnosis and severity. Furthermore, this finding may serve as an explanation for the high levels of social dysfunctioning in depressed patients compared with patients with an anxiety disorder. According to Hurry & Sturt (1981), depressive key symptoms, not themselves common, might be accompanied by many other symptoms, and consequently "clinical severity", measured in terms of type and number of symptoms, is likely to be accompanied by social disablement. A similar explanation is provided by Grayson *et al* (1987). In their study of the relationship between symptoms and diagnosis of minor psychiatric disorders among primary care patients, they found that symptoms chosen to indicate depression 'caseness' do so at a severe level of trait depression, while symptoms chosen to indicate anxiety do so at a moderate level of trait anxiety. Given the high correlation of these traits, the following would occur: subjects with moderate or high depression symptom counts would usually have high anxiety symptom counts, and subjects with moderate or low anxiety symptom counts will generally have low or even zero depression symptom counts. In such a situation, depression is likely to be associated with higher levels of social dysfunctioning than anxiety disorders. A third explanation for the high levels of social dysfunctioning in depressed patients is provided by Hecht *et al* (1989, 1990). They suggest that social dysfunctioning is a risk factor for the development of depressive symptoms, and hence depressed patients are very likely to have high levels of social dysfunctioning.

In summary, our data indicate that social dysfunctioning in primary care patients is only moderately related to psychopathology, in terms of both symptom severity and diagnosis. This is because variation in social functioning is probably affected as much or more by factors unrelated to psychopathological symptoms as by the symptoms themselves (Dohrenwend *et al*, 1983). Therefore, future research should incorporate additional predictors of social dysfunctioning (e.g. personality, life events, long-term difficulties, physical disorders). To investigate the effect of symptom severity, diagnosis, and comorbidity on social dysfunctioning,

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it will be necessary to undertake prospective studies that will clarify the temporal sequences of these variables (e.g. von Korff *et al*, 1992). These strategies may advance our understanding of the complex process whereby interaction between a person's psychopathology and the social environment affects his/her behaviour.

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