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### Subjects

The present analysis was performed on the basis of 235 migrants who had participated in all three waves. These 126 males (mean age = 31 years;  $sd = 9.25$ ) and 109 females (mean age = 32 years;  $sd = 10.39$ ) had arrived in West Berlin in 1989. At the onset, 63 of the men and 72 of the women were either married or had a partner. The majority of the sample consisted of refugees (62%), defined as those who arrived before the opening of the Berlin Wall on November 9, 1989, whereas the others were considered to be legal migrants (38%) because they arrived after this date. As there were no major psychological differences between refugees and legal migrants, the two groups were pooled for the present statistical analysis.

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## Unemployment, Social Support and Health Complaints: A Longitudinal Study of Stress in East German Refugees

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### ABSTRACT

Migrants have to deal with a number of stressors, among them tenacious job search and the constitution of a new social network. Prolonged unemployment and lack of social support can result in impaired health. A sample of 235 East Germans was investigated at three times during two years following their transition to West Berlin in 1989, after the breakdown of the communist system. The majority found a job during this time and succeeded to adapt psychosocially. Those, however, who remained unemployed were worse off in terms of self-reported health. This stress-health relationship was moderated, however, by social support. Within the group of migrants who suffered from long-term joblessness, social support exerted a longitudinal buffer effect. At Wave 3, frequent physical symptoms were reported only by migrants who neither held a job nor received support. In a longitudinal causal model, the employment status affected mainly health complaints, but also social support. The relationship between health and support was found to be reciprocal over time.

*Key words:* Physical symptoms, migrants, life crisis, social support, stress, health.

### INTRODUCTION

In 1989, more than 300,000 East German citizens left their country and moved to West Germany. As part of this exodus, more than 50,000 migrants settled in West Berlin. Some came via the West German embassies in Warsaw, Prague or Budapest, or fled the country under other dubious and dangerous conditions; a larger number crossed the border after the fall of the Berlin Wall on November 9, 1989. The aim of this study was to investigate the coping, adaptation processes and health outcomes of these migrants in their new environment. The focus lies on the research question as to whether interindividual health differences can be predicted by the personal employment situation and the provision of social support.

The decision to flee one's country and home has far-reaching and severe consequences. This can be considered a non-normative critical life event (Montada, Filipoff and Lerner, 1992). As with other critical events (such as accidents, losses, divorce,

illness, etc.) the corresponding psychological crisis may have a tremendous impact on an individual's personality development, psychosocial functioning and health. It is not only necessary to cope with daily hassles, especially crowded living conditions in camps or gyms, but also with the threat of long-term unemployment and the need to build up a new social network. Thus, the migrants are disadvantaged not only by higher demands than previously, but also by their heightened individual vulnerability towards stress because they have to deal with the loss of not only their jobs, but also of social support from former colleagues, friends, and relatives. According to Lazarus' (1991) cognitive-relational theory of stress, long-term employment and social support, among other factors, can be seen as protective situational resources when facing stressful demands. Material, psychological, social and health-related resources influence stress appraisals and coping processes, i.e. strong resources should invoke more favourable stress experiences and coping behaviours than a lack of such resources (Hobfoll, 1988, 1989; Hobfoll, Lilly and Jackson, 1992; Jerusalem and Schwarzer, 1989, 1992).

Employment and social support as resource factors will be discussed in more detail. *Employment* is the basis for earning one's living and for being respected in a Western society characterized by high material and economic values. Thus, the impact of unemployment goes beyond direct economic costs. Loss of job creates insecurity with respect to one's future life perspective. Although research on unemployment problems is heterogeneous, and there is a striking variability of empirical results, it can be summarized by saying that the studies generally report an impairment of psychological and physical well-being for the majority of the unemployed, especially in the case of long-term unemployment (Frese and Mohr, 1987; Schwefel, Svensson and Zöllner, 1987; Warr, 1987; Dooley and Catalano, 1988; Feather, 1990; Häfner, 1990). The stressing quality of unemployment is mostly attributed to decrements in environmental features, such as weakened control possibilities due to financial hardships or social network disruption, fewer goals and task demands, a larger time budget without time markers to break up and organize each day, or reduced opportunities for social contacts. An enduring status of unemployment requires continuous adaptational efforts—instrumental actions to eliminate the jobless state as well as emotional coping to alleviate the distressing experience (Lazarus, 1991). For migrants, unemployment following relocation appears to be a universal phenomenon hardly under personal control. Thus, problem-focused behaviours such as searching or qualifying for a job may be evaluated as being of limited value only. Instead, emotion-focused coping strategies should be used more to deal with this problem, particularly in the case of extended unemployment. Long-term psychological consequences can be feelings of discouragement, hopelessness and despondency, as well as impairments of self-worth and somatic health. Kelvin and Jarrett (1985) argue that these effects are stabilized via social comparison processes, since working people may perceive long-term unemployed as a negative reference group whose members cope inadequately with life. Moreover, reemployment could be viewed as a necessary condition of re-establishing a personal resource system (Hobfoll, 1989). For these reasons, there must be a very high incentive value attached to reemployment after migration.

A well-established social network is a structural prerequisite of feeling socially integrated and emotionally accepted (Laireiter and Baumann, 1992; Thoits, 1992; Veiel and Baumann, 1992). *Social integration* refers to the mere existence of a quantity

of social relationships, and it comprises the size of a network, such as number of relatives and friends, and the frequency of contact with these people. The number of active social ties determines one's degree of embeddedness, with social isolation being one extreme endpoint. *Social support*, on the other hand, refers to the function and quality of beneficial social relationships. Within this functional perspective, perceived availability of support has to be distinguished from the activation of support when needed. In fact, both concepts seem to refer to different dimensions. *Perceived support* (expected available support or 'cognitive' support) denotes the anticipation of supportive action if needed. *Received support* ('behavioural' support) describes actual social encounters where someone has provided tangible help, affection or other kinds of support. Received support thus refers to the actual receipt of helpful transactions, which can be of the emotional, instrumental or material variety. Perceived and received support differ in terms of the point in time when they become important. Perceived support may be most important under normal, everyday circumstances where people can usually cope on their own or have to rely only to a limited degree on other's help. A general sense that one is loved and cared for by others and that these others would help if they are really needed should contribute to psychological and physical well-being. Also, during the initial encounter of a stressful event, the perceived availability of support might help to reduce stress appraisal insofar as the balance between threat and coping assets may be more favourable. However, once support actually has to be mobilized, discrepancies can occur. At this point, support receipt may differ from support expected prior to the event, either because the network does not respond in an appropriate manner, or because the available support has actually been underestimated.

There are different mechanisms through which social relationships may influence the development of health. Support may have either a benign effect on health in the normal population, thus appearing as a statistical main effect, or it may alleviate stress and its consequences. In the latter instance, support serves as a buffer or moderator. In the stress-buffering model, support may be influential at two points in time: first, when stressful demands are cognitively appraised, and second, by dampening health-damaging physiological processes. Cohen and Wills (1985) have hypothesized that perceived support is more likely to exert a main effect, while received support would rather produce buffer effects. This seems to be a reasonable assumption insofar as the receipt of support in most cases is likely to be preceded by a prior situation of need. Thus, social support can operate as a moderator that influences the link between stressful life events and health consequences (Schwarzer and Leppin, 1991, 1992a, 1992b; Cohen, 1992; Henderson, 1992; Monroe and Johnson, 1992; Veiel, 1992).

Employment status and social support may be confounded with each other, i.e. employment is often connected with social contacts, whereas unemployment may lead to being socially unattractive. In the present sample, the East German migrants need to strive for both resources in their new environment. A new job is not provided automatically by Western society, and for most newcomers there is no immediately existing social network. For these reasons, looking for an appropriate job, as well as trying to establish contact with other people and making friends, become essential adaptation problems. The effectiveness of problem-solving in this respect probably has strong effects on one's emotional experiences. Those who are successful would

be expected to feel less stressed and to be better off with respect to their psychological well-being than those who fail.

Following these theoretical considerations, the present study deals with individual differences in physical symptoms with respect to employment status and social support. It is expected that, over time, employed migrants would acquire superior health than unemployed migrants, and that those who signify receiving support would report fewer health complaints than those who lack support. Psychological variables were also the subject of the present study but the presentation of their results is beyond the scope of this article.

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The subjects filled in a questionnaire measuring, among other variables, employment status, received social support, perceived (anticipated) social support and health complaints. According to theoretical considerations, employment status and social

support were taken as independent variables, whereas experiences of physical symptoms served as dependent variables.

### Measures

The actual *employment status* of the subjects was recorded at three points in time (*employed* versus *not employed*). For the longitudinal approach, it was determined whether the migrants were: (a) jobless at the beginning of the study and jobless at the end ('always jobless',  $n = 50$  (15 males and 35 females); (b) jobless at the beginning but had found a job during the 2-year period ('job hunt successful',  $n = 105$  (56 males and 49 females); and (c) employed at the beginning and at the end ('never jobless',  $n = 54$  (38 males and 16 females). Seven men held a job at the initial interview but lost it later. They were discarded from the analyses because of the small cell frequency. For the remaining 19 persons, there were no accurate data available. Evidently, more women than men were unemployed.

For the social support construct, a distinction was made between *received social support*, which denotes a retrospective assessment of actual behaviours, and *perceived social support*, which denotes the anticipation of the availability of support in times of need. The first scale consisted of eight items such as 'Friends and relatives have helped me look for a job' ( $\alpha = 0.81$ ); the second scale consisted of eight items such as 'There are people whom I can rely upon when I need help' ( $\alpha = 0.87$ ). All items were endorsed on a 4-point Likert-type scale. The scores range from 8 to 32.

As indicators of *ill health*, self-reported physical symptoms were recorded on the basis of a well-known German instrument (Brähler and Scheer, 1983). From this inventory, 24 items were taken that were subdivided into four subscales of six items each: (a) *heart complaints* ( $\alpha = 0.77$ ); (b) *pains in the limbs* ( $\alpha = 0.82$ ); (c) *stomach complaints* ( $\alpha = 0.79$ ); and (d) *exhaustion* ( $\alpha = 0.87$ ). All items were endorsed on a 5-point Likert-type scale. The four scales were aggregated to one total score for which the terms 'physical symptoms', 'health complaints' and 'ill health' are used synonymously in this paper. Its scores range from zero to 96.

## RESULTS

### Employment and illness

The first analysis aimed at the relationship between health complaints and employment status across the three waves. An analysis of variance was computed with three levels of employment status as one factor and three points in time as the repeated measurement factor. A main effect of employment status results ( $F[2,196] = 12.67$ ;  $p < 0.001$ ), whereas the time factor was only of borderline significance ( $F[2,392] = 2.75$ ;  $p = 0.065$ ). There was no significant interaction.

Figure 1 depicts the pattern of means for the dependent variable *health complaints*. The upper line represents those subjects who remained jobless over two years ( $n = 45$ ). They reported the highest level of symptoms. The middle line represents those subjects who found a job during the two-year period ( $n = 101$ ). The lower line ( $n = 53$ ) represents those migrants who have not been jobless<sup>1</sup>. This last group consists of subjects investigated several weeks after their arrival who had already

<sup>1</sup> Five participants of the 'always jobless', four of the 'job hunt successful', and one participant of the 'never jobless' group did not respond to the health complaints measure.

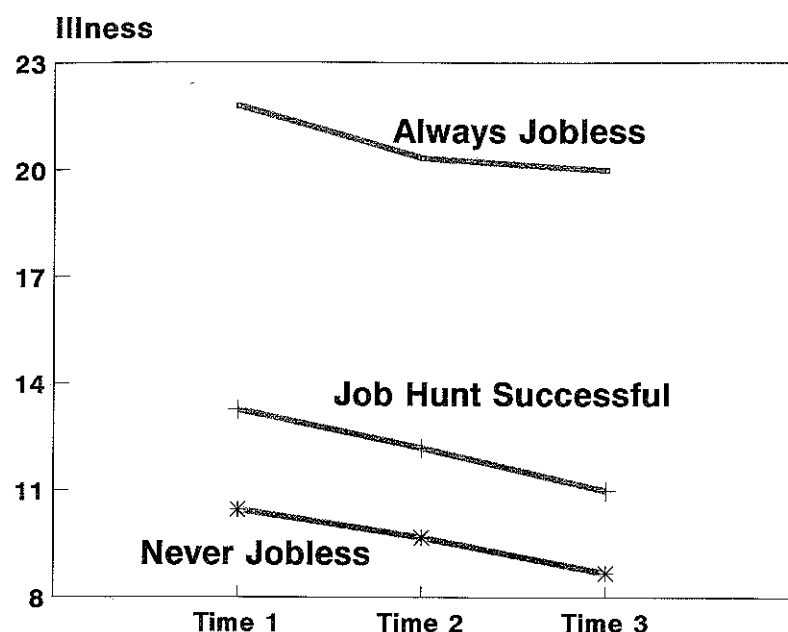


Figure 1. Employment and physical symptoms.

found a job and kept this job over the two-year period. They report the lowest degree of symptoms. There is a downward trend for all three groups, but, as mentioned above, this trend did not reach significance. Figure 1 demonstrates a stable relationship between one's employment status and self-reported ill health, but this relationship was further elucidated when sex differences were taken into account (Table 1). Symptom reporting was much more extreme for men than for women, the latter of whom were either employed or not. Apparently, for men joblessness seems to be more detrimental, or else initial health problems inhibit job search and hiring. At all three waves, women reported more ill health than men, with  $F = 12.69$  ( $p < 0.01$ ),  $F = 14.86$  ( $p < 0.01$ ), and  $F = 4.55$  ( $p < 0.04$ ), respectively. This effect has been caused by the two employed groups, whereas the third group of men who were always jobless reported more illness.

#### Employment and social support

It was assumed that holding a job would be a good prerequisite for social support since people meet colleagues at work and can make friends. For a detailed description of these relationships, the means and standard deviation for perceived (anticipated) support, broken down by employment status, sex, and time are given in Table 2.

The mean differences for employment groups are negligible, as tested by analysis of variance. There are also no sex differences at the three waves, with  $F = 2.02$  ( $p < 0.16$ ),  $F = 2.68$  ( $p < 0.10$ ), and  $F = 0.54$  ( $p < 0.46$ ), respectively. Table 3 describes received support. Again, differences for employment groups are negligible and sex differences do not emerge at the three waves, with  $F = 1.72$  ( $p < 0.20$ ),  $F = 0.02$  ( $p < 0.89$ ), and  $F = 3.08$  ( $p < 0.08$ ), respectively.

Table 1. Health complaints of women and men at three waves, broken down by employment status, sex and time (means and standard deviations)

	Women			Men		
	Wave 1	Wave 2	Wave 3	Wave 1	Wave 2	Wave 3
Always jobless	20.69 (17.18)	17.84 (15.62)	16.68 (14.84)	23.53 (16.23)	26.00 (15.09)	26.67 (19.01)
Job obtained	16.76 (14.81)	16.00 (13.32)	12.75 (12.56)	10.31 (12.21)	8.51 (9.87)	9.53 (10.07)
Never jobless	14.56 (9.95)	16.07 (9.55)	11.56 (8.24)	8.95 (11.29)	7.16 (10.93)	7.34 (8.93)
<i>F</i>	1.080	0.190	1.250	7.96	17.33	16.77
<i>p</i> <	0.034	0.082	0.029	0.01	0.01	0.01

Table 2. Anticipated social support of women and men at three waves, broken down by employment status, sex and time (means and standard deviations)

	Women			Men		
	Wave 1	Wave 2	Wave 3	Wave 1	Wave 2	Wave 3
Always jobless	23.62 (6.80)	24.26 (6.73)	22.77 (6.62)	21.87 (8.35)	20.73 (6.89)	22.60 (7.04)
Job obtained	24.33 (6.19)	24.02 (5.99)	25.22 (4.73)	23.09 (7.02)	24.07 (5.83)	24.80 (5.14)
Never jobless	25.00 (7.74)	25.13 (5.40)	26.19 (4.56)	23.37 (6.57)	23.71 (5.08)	24.74 (4.85)
<i>F</i>	0.25	0.18	2.97	0.25	2.05	1.07
<i>p</i> <	0.78	0.83	0.06	0.78	0.13	0.35

Table 3. Received social support of women and men at three waves, broken down by employment status, sex and time (means and standard deviations)

	Women			Men		
	Wave 1	Wave 2	Wave 3	Wave 1	Wave 2	Wave 3
Always jobless	19.53 (5.86)	25.36 (7.22)	25.03 (6.93)	20.47 (6.93)	24.00 (6.89)	25.67 (8.97)
Job obtained	21.52 (6.36)	25.67 (6.94)	28.41 (5.25)	20.36 (5.81)	26.32 (6.62)	26.33 (5.79)
Never jobless	22.87 (6.09)	27.94 (6.53)	28.50 (6.60)	20.34 (4.70)	26.68 (4.73)	26.39 (4.76)
<i>F</i>	1.84	0.81	3.54	0.003	1.10	0.09
<i>p</i> <	0.17	0.45	0.03	0.99	0.34	0.92

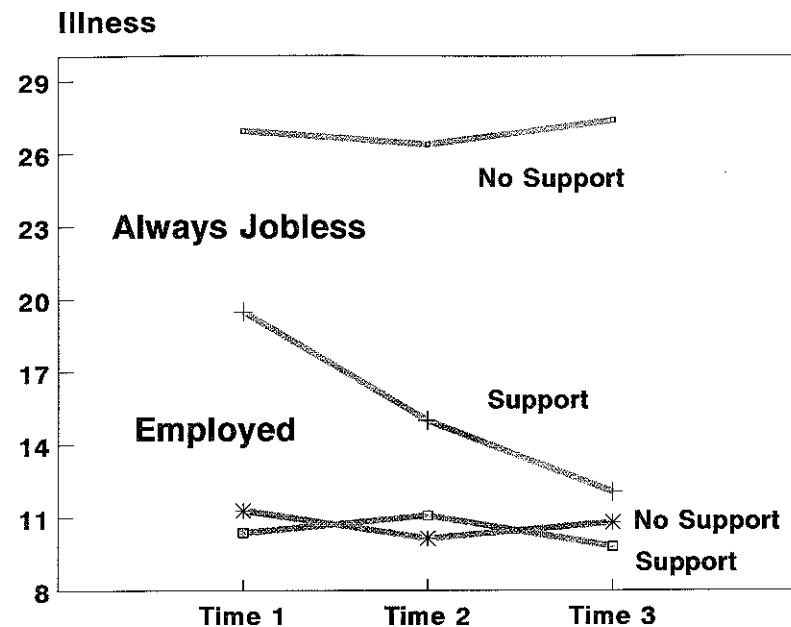


Figure 2. Employment, support and physical symptoms.

#### Interaction of employment and social support

As a next step, social support was added as a second between-subjects factor. The question was whether support could buffer the effect of joblessness on ill health. The distribution of the received social support scale was dichotomized at Wave 1 and at Wave 3. Those migrants who scored above the median both times were considered as benefitting from long-term support, whereas those migrants who scored below the median at both times were considered as lacking long-term support. All others were discarded for this analysis. In order to avoid too-small cell frequencies, the employment status factor no longer included three levels, but two—those migrants who remained jobless over two years ( $n = 36$ ) and those who either kept a job the whole time or found one during the observation period ( $n = 111$ ). Thus, there were four groups of migrants in this analysis: (a) those who were always jobless and were less supported ( $n = 21$ ); (b) those who were always jobless and received support ( $n = 15$ ); (c) those who were employed and were less supported ( $n = 54$ ); and (d) those who were employed and received support ( $n = 57$ ). A repeated-measurement ANOVA was computed with employment status and support as between-subjects factors and with time as the within-subjects factor. This analysis yielded a main effect for employment status ( $F[1,143] = 26.46$ ;  $p < 0.001$ ), a main effect for support ( $F[1,143] = 7.15$ ;  $p = 0.008$ ), an interaction between employment and support ( $F[1,143] = 8.06$ ;  $p = 0.005$ ), and a borderline triple interaction between employment, support and time ( $F[2,286] = 2.79$ ;  $p = 0.063$ ). Figure 2 displays the results. The bottom two lines represent the employed migrants, who reported low physical symptoms, whether they were supported or not. For the always jobless migrants, however, support makes a big difference. Those who suffer jointly from two stressors, i.e. being unemployed and experiencing lack of support, continue

to report the highest level of ill health at three points in time. Most interestingly, those who remain jobless but receive social support show a remarkable decline in ill health over time. This is an impressive research example of the often-hypothesized buffer effect of social support within the stress and health relationship. Efficient support seems to be able to reduce ill health down to the level of those migrants who are employed and do not suffer from this kind of job-related stress.

#### Illness and social support: causal modelling

In a previous meta-analysis on social support and health (Schwarzer and Leppin, 1991), 110 correlations, ranging between  $-0.43$  and  $+0.17$ , were analysed and a population effect size of  $r = -0.07$  was determined. In the present study, the correlations ranged between  $-0.03$  and  $-0.25$  for men and between  $-0.15$  and  $-0.34$  for women (Table 4). Women who feel supported by others tend to complain less about their health. It is also of note here that the two dimensions of support are closely related, with correlations between  $0.49$  and  $0.73$  for men and between  $0.51$  and  $0.87$  for women.

To further elucidate the longitudinal relationship between social support and ill health, a causal modelling approach was chosen. Employment status was specified as a single-indicator exogenous factor, whereas social support and ill health were specified as multiple-indicator endogenous latent variables at three occasions, similar to a cross-lagged panel design. Three physical symptoms were taken as indicators for ill health: heart complaints, pains in the limbs and exhaustion. The fourth illness subscale, stomach complaints, was not included because it did not fit very well into this measurement model. Two social support scales were used as indicators for the latent support variable, namely received social support and anticipated (perceived) support. The analysis was based on a correlation matrix of 180 migrants with complete data.

The analysis was done with the LISREL VII program (Jöreskog and Sörbom, 1988). The free parameters were estimated by the unweighted least squares method. Several indices of goodness of fit were obtained: (a) chi-square (81) = 126.81 (ss); (b) chi-square/df = 1.57; (c) GFI = 0.99; (d) AGFI = 0.99; and (e) RMSR = 0.038. Figure 3 displays the results. The direct effect of employment status on support (Wave 1) was 0.12, its indirect effect on support (Wave 2) was 0.16, and its indirect effect on support (Wave 3) was 0.14. Being employed, therefore, was associated with more social support. The cause for stronger indirect than direct effects lies in the pathways leading via illness that exert some additional influence on support.

Being employed also exerted a beneficial influence on health. The direct effect of employment status on ill health (Wave 1) was  $-0.38$ , its indirect effect on ill health (Wave 2) was  $-0.29$ , and its indirect effect on ill health (Wave 3) was  $-0.22$ . Joblessness, therefore, affects ill health more than it affects support.

Both support and illness were relatively stable constructs over two years, as indicated by the test-retest correlations varying between 0.78 and 0.88. The cross-sectional support-illness correlation was  $-0.17$  at Wave 1. The lagged paths were somewhat weaker. Significant influences went from illness (Wave 1) to support (Wave 2) of  $-0.16$ , and from support (Wave 2) to illness (Wave 3) of  $-0.13$ . There is no consistent unidirectional influence of one latent variable to the other. Instead, this finding illustrates a reciprocal relationship between these two constructs over time. Reporting physical symptoms at the beginning of the study may have alienated

Table 4. Correlations between physical symptoms and social support at three points in time

	Illness 1	Illness 2	Illness 3	Perceive 1	Perceive 2	Perceive 3	Receive 1	Receive 2	Receive 3
Illness 1		0.61**	0.54**	-0.29*	-0.31**	-0.29*	-0.21	-0.27*	-0.33**
Illness 2	0.73**		0.73**	-0.32**	-0.31**	-0.23	-0.22	-0.29*	-0.31**
Illness 3	0.68**	0.70**		-0.23	-0.30*	-0.30*	-0.15	-0.27*	-0.34**
Perceive 1	-0.11	-0.17	-0.17		0.59**	0.50**	0.74**	0.56**	0.53
Perceive 2	-0.24*	-0.12	-0.25*	0.66**		0.71**	0.54**	0.79**	0.66**
Perceive 3	-0.15	-0.13	-0.24*	0.65**	0.74**		0.51**	0.62**	0.87**
Receive 1	0.00	-0.07	-0.07	0.68**	0.49**	0.57**		0.56**	0.55**
Receive 2	-0.17	-0.06	-0.19	0.58**	0.76**	0.62**	0.57**		0.69**
Receive 3	-0.02	-0.03	-0.09	0.56**	0.55**	0.73**	0.62**	0.60**	

*n* of women = 96 (upper triangle, in italics); *n* of men = 115 (lower triangle). \* *p* < 0.01; \*\* *p* < 0.001.

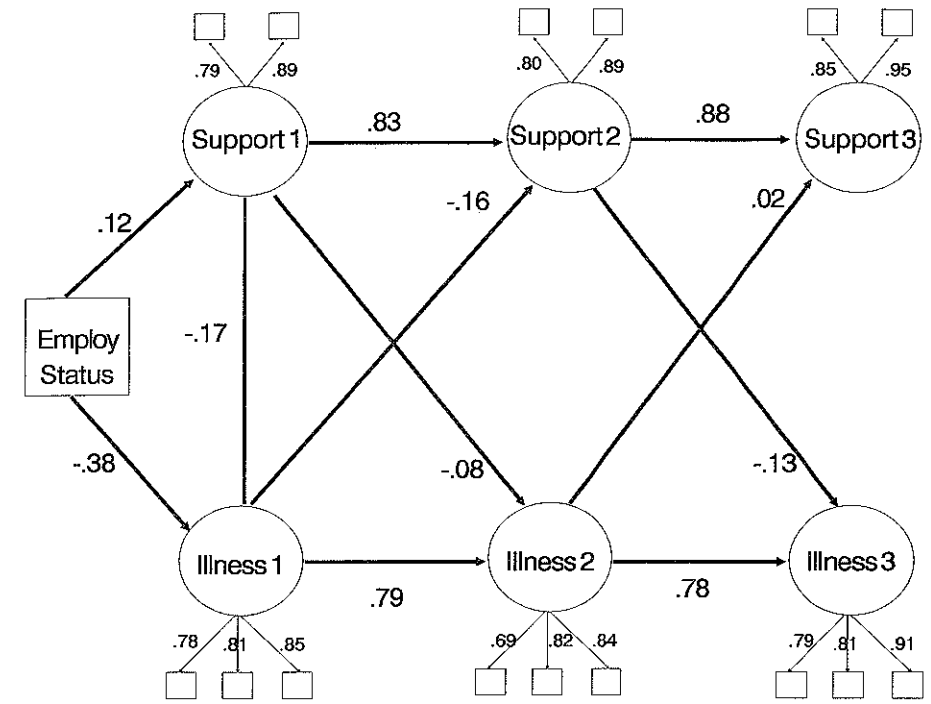


Figure 3. The relationship of employment, support and physical symptoms: a causal model.

one's social network members, and in turn a lack of support may have increased the reporting of symptoms.

For illustration reasons, the autocorrelated residuals were not depicted in Figure 3. The error variance (epsilon) for each indicator was allowed to correlate with its corresponding error variance at any other point in time. This is a common specification in longitudinal causal models to account for test-specific biases such as retest effects (Jöreskog and Sörbom, 1988). The explained variances for the latent social support construct were 1.5% at Wave 1, 76% at Wave 2 and 77% at Wave 3. The explained variances for the ill-health construct were 14% at Wave 1, 66% at Wave 2 and 69% at Wave 3.

DISCUSSION

The main feature of the present study lies in its longitudinal examination of the relationships between a stress experience, social support and ill health at three points in time over two years. It also represents the only available panel study on psychosocial changes in East German migrants. The three analyses presented above raise a number of questions to be discussed. The first result (see Figure 1) has documented a stable effect of employment status on ill health. In particular, those who remained jobless over two years reported continuously the highest degree of physical symptoms. The design implicitly assumes a causal influence from being jobless to the reporting of illness. However, although this direction is suggestive, it cannot be ruled out that the opposite causal direction may operate (see below).

The second result (see Figure 2) includes the combined effects of employment and social support over time. It documents a remarkable decline of ill health in those migrants who receive support while being continuously jobless. This *longitudinal buffer effect* goes beyond the well-known cross-sectional buffer effects of social support as reported in many other studies (Cohen and Wills, 1985). It refers to the dynamics of a crisis, and therefore it underscores the hypothesized mechanism of alleviating stress by the availability of beneficial social resources.

The existence of this longitudinal buffer effect poses some questions on the interpretation of the third result (see Figure 3), since in this causal model only main effects were considered. The advantage of this multi-occasion model with latent variables lies, however, in the estimation of direct and indirect effects over time. It documents that support and ill health are stable constructs, being only moderately related to each other. There is no unidirectional causal relationship, but a reciprocal relationship. Illness leads to less support, and less support in turn leads to more illness. Although this makes good sense, one also has to consider that other lines of research have found an opposite pattern, namely a mobilization effect of support in face of illness: When people fall ill or become a victim of an accident, their social network is often mobilized and provides more support than before (see Schwarzer and Leppin, 1991, 1992a, b). Also, it has been shown that people are particularly well-supported when they themselves actively cope with a critical event (Schwarzer and Weiner, 1991; Schwarzer, Dunkel-Schetter, Weiner and Woo, 1992). It is assumed that the latter effects occur only in times of specific and sudden life crises. Otherwise, it is more likely that frequent health complaints overtax one's social interaction partners and discourage them to be supportive—at least in the long run. This assumption would be in line with the present results.

This study sheds some light on changes of ill health depending on stress and support over a two-year period, but it also has its limitations. It is unfortunate that there was no opportunity to obtain any objective health data in this investigation. This was due to the spontaneous nature of the study, being launched without detailed preparation while the refugees were arriving in great numbers in Berlin in the Autumn of 1989, and the sometimes very unusual circumstances under which the refugees were interviewed. (For example, some filled out the initial questionnaire while standing with their suitcases in the waiting hall of the refugee reception centre.) Another limitation lies in the nature of the sample itself. The findings cannot be generalized to a normal population because they were obtained from a sample of migrants only. Unemployed migrants need not have the same characteristics as long-term unemployed citizens who did not migrate. However, the role of resource factors is best examined within a context of high stress (Hobfoll, 1989).

The focus of this study was indeed on the effect of unemployment on health, but the evidence appears to be not conclusive. In particular, it was found that already, at the onset of the study, health differences emerged between the 'always jobless' and the successful job gainers and job holders. The evidence that symptom-reporting at the beginning is associated with remaining out of work later on, points to the possibility that ill health may be the true independent variable here. Feeling weak and complaining about various bodily symptoms can be either a justification for not searching for a job or a reason for not being hired. Healthy individuals have a better chance of finding a job and of staying in the job. However, the present study cannot prove any causal direction. Illness and work can be understood as

transactional variables, and more data would be required to identify the predominant factor if there is one.

Another critical issue lies in the definition of unemployment. We have not distinguished between unemployment and joblessness, and have implicitly made the assumption that everyone in the sample wishes to work. However, it could be that, for example, mothers who are actively engaged in child-rearing do not want a job at present and are content with their life. This critique does not apply here because there were almost no mothers in the sample and because all migrants were eager to make money to rebuilt their life. The East Germans, who had no convertible currency, were without funds, which motivated them to search for any kind of job. Another similar point of criticism could be that married female participants might feel less inclined to find a job, being content to lead the life of a homemaker. This could be true in the future, but at the onset the migrants were very concerned about making their daily living. Nevertheless, the job status of a spouse could be important for one's well-being. Unfortunately, this information was not available. The questionnaire panel study was accompanied by a more qualitative interview study of 44 migrants that provided this evidence about the life situation, readjustment efforts and the motives for work. There is no complete information of this kind for the entire sample.

Another limitation is that there are no data about the nature of the work found by the participants. It is not known whether the jobs were part-time, explicitly temporary or inadequate in other ways. This, however, would only represent a bias if it were distributed unevenly across the cells of the design, which is unlikely.

The study of health impairment after job loss should, if possible, include the detailed assessment of coping parameters and real opportunities for re-employment. It has been found (Lerner and Somers, 1992) that coping modes and positive illusions may contribute to well-being, job-search intentions and job-search behaviour, but that this influence also depends on actual job qualifications and on the dynamics of the crisis. A possible research question would be, for example, whether unrealistic optimism would be functional or dysfunctional for job search and well-being. Those who feel well and healthy may do so because they have a positive outlook on life, although their objective reemployment chances could be negligible. In this analysis, it was not possible to further break down the sample in terms of coping modes, gender, living environments or personality characteristics because the small cell sizes did not allow a more fine-grained examination of the data. Therefore, separate analyses have to be performed with these variables in the future. The main findings of the present analysis are based on small subsamples and, thus, the results call for replication.

In spite of some limitations, these results are among the few that indicate longitudinally a deleterious effect of unemployment and beneficial effects of social support on health. It is an example of cumulative stress and adds to our understanding of coping with job loss, migration and stress resource factors.

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