Social stress and schizophrenia:
From the concept of recent life events
to the notion of toxic environments

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Introduction

One key function of psychiatric research has been the operational definition and empirical testing
of generally held notions or theories that arise in the course of everyday clinical practice. The idea
that life stress is causally involved in the onset and the course of severe mental disorders has had
a long-standing, intuitive appeal for psychiatrists, psychologists and other mental health profession-
als. Even though it is possible to trace a theoretical emphasis on the significance of life crises back
at least as far as Adolf Meyer’s biosocial perspective, the real watershed for empirical studies did
not occur until the mid-1960’s with the publication in the United States of Holmes’ and Rahe’s
(1967) Schedule of Recent Experiences (SRE) and the pilot research with schizophrenic patients
carried out in Great Britain by Brown and Birley (1968). Armed with a new methodology and
stimulated by suggestive findings, investigators produced an impressive body of empirical research
over the next 15 years addressing various issues having to do with the relationship between recent
life events and schizophrenia.

A substantial portion of this chapter is given over to a critique of the concept of ‘life events’
and to a discussion of the manner in which it has been applied within the context of schizophrenia
studies. I am particularly concerned with the failure of many investigators to recognize the rather
limited scope of this concept, as well as the general lack of integration between this particular
approach to the measurement of social stress and collateral lines of research being carried out on
other socioenvironmental factors. In the latter part of this chapter, I will try to put forward some
very general ideas concerning what a broader and more informative approach might look like.
Life events and schizophrenia

During 1980 and 1981, three major reviews - two American (Rabkin 1980; Dohrenwend and Egri 1981) and one European (Day 1981) - were published on the subject of recent life events and schizophrenia. These three papers vary markedly in their overall conclusions and, when compared with one another, serve as an excellent starting point for a survey of the current state of opinion in the field. With regard to the fundamental question of whether the available evidence supports a clinically significant causal association between stressful life events and the emergence or exacerbation of schizophrenic symptomatology, the Rabkin (1980) article is clearly the most skeptical, while the Dohrenwend and Egri (1981) paper is the least cautious of the three. In her conclusion, Rabkin (1980:424) argues that:

'Notwithstanding pervasive methodological problems and a lack of equivalence in study designs the weight of the evidence currently available suggests that...life events may contribute incrementally to an already inflated stress level and so may influence the timing, if not the probability, of illness onset. That is, the events reported are not themselves sufficient, either quantitatively or qualitatively, to account for illness onset...nor are they a necessary precursor of illness.'

In contrast, Dohrenwend and Egri (1981:22) emphasize the significance of methodological weaknesses in prior studies and insist that:

'The consensus that stressful recent life events have only a trivial impact on the onset and course of schizophrenia is premature. What is needed is further research on the nature of their enigmatic environmental influence.'

It is worthwhile inquiring more deeply into the positions described above since they still represent the major poles of opinion with regard to the relationship between recent stressful life events and schizophrenia. The position taken by Dohrenwend and Egri is the 'strong' interpretation of the current data. They argue that recent stressful life events can act not only to precipitate episodes of illness in predisposed individuals, but, under certain circumstances, may play a substantial aetiological role in the development of schizophrenic disorders. Drawing upon the evidence from studies of extreme situations and battlefield psychoses (Dohrenwend 1979), the author suggests that there is sufficient evidence to identify a certain number of schizophrenic onsets in which stressful life events are the primary cause of illness (cf. Strauss and Carpenter 1981:133).

Zubin and his co-workers (Zubin and Spring 1977; Zubin and Steinhauer 1981; Zubin et al. 1983) have taken a somewhat different position. They hypothesize that life events are required to 'trigger' specific episodes of schizophrenia. In this formulation, which the authors insist covers the vast majority of initial and relapse episodes, recent stressful life events are conceptualized as necessary but not sufficient causes of an episode of illness. Zubin and Steinhauer (1981:482) suggest that:

'Unless a triggering event occurs, no episode will follow. Triggering events are short-term inducers of sufficient stress to produce crisis. They are undesirable, novel, unexpected, unanticipated and uncontrollable: produce losses; and require considerable readjustment of daily routine.'

In this model, recent life events are restricted to the role of triggers for specific episodes of illness and are not seen as having a formative or aetiological effect. Events with aetiological implications are viewed as having occurred earlier, during prenatal, neonatal or childhood periods of development.
The third position found in the literature describes a much weaker relationship between recent stressful experiences and the appearance or exacerbation of schizophrenic symptomatology. This position holds that life events generally trigger something which was bound to become manifest before long for other reasons. Recent life events are viewed as simply bringing the onset of the disorder forward by a short period of time or making the onset somewhat more abrupt. From this perspective, recent stressful life events, in the majority of cases, constitute neither a necessary nor a sufficient cause of the manifest appearance of symptomatology. Instead, life events are conceptualized as external agents capable of moulding, to a limited extent, features of the onset of the disorder. This position is more in accord with Rabkin's interpretation of the current data and finds support in the thinking of Brown and his colleagues (see Brown et al. 1973b; Brown and Harris 1978).

There are two important issues involved here that need to be kept separate in any discussion of life events and schizophrenia. One of these issues is theoretical and has to do with the possibility that life events may play a certain role in the onset of schizophrenic illnesses, i.e., is it possible for recent stressful life events to play an etiological (or formative) role in the development of schizophrenic psychoses? The other issue is clinical in nature and concerns the actual frequency with which certain theoretical possibilities have been observed, i.e., what role have recent stressful life events been observed to play in the majority of schizophrenic psychoses? With regard to the first issue (i.e., theoretical possibility) there appears, in fact, to be little disagreement among investigators such as Brown, Dohrenwend and Zubin. The real points of contention among these investigators emerge around their estimates of the role played by stressful life events for the greatest number of schizophrenic patients, i.e., the issue of clinical significance. Brown (personal communication), for example, would not rule out the possibility that life events may play a formative role in certain cases of schizophrenia, but he would also be likely to add that such cases are rare compared to those in which external stressors play a more restricted role. Similarly, Dohrenwend and Egri, like Zubin and his co-workers, would no doubt agree that there is a certain, relatively small, percentage of patients whose vulnerability to illness is so great that they may be expected to relapse simply as a consequence of the stress involved in everyday, uneventful social intercourse (cf. Left et al. 1973:660). Yet, in the vast majority of cases, Dohrenwend and Egri as well as Zubin and his colleagues would no doubt continue to insist that stressful life events play a far more substantial role in the emergence of specific illness episodes than has been indicated in the writings of authors like Brown and Rabkin.

My own reading of the literature (see Day 1981) is closer to the perspective endorsed by Rabkin and Brown. What I have termed the 'stronger' points of view often found on one or the other of two important errors. The first error occurs when data bearing on theoretical possibilities becomes confused with the evidence for clinical significance. In effect, rare or unusual occurrences (e.g., combat psychoses) may be over-emphasized in terms of their implications for everyday clinical practice. The second error involves a surreptitious expansion of the concept of 'life events' until it is synonymous with almost any kind of environmental or biochemical occurrence (e.g., Zubin and Steinhauser 1981:482). Once the concept of 'life events' has been expanded in this way, it becomes all but useless for research since it is impossible to negate almost any hypothesis.

At the present time, it is impossible to attribute a necessary and/or sufficient role to recent life events in the onset of most schizophrenic psychoses. Clearly, the strongest and most convincing piece of research in the literature is the case-control study carried out by Brown and Birley (1968) and Birley and Brown (1970). In this study, it was found that during the 3-week period immediately preceding the observed appearance of florid psychotic symptoms, a little more than half (60%) of the patients interviewed reported at least one event which was unlikely to have been caused by a prior (i.e., insidious) illness onset.
In assessing the findings from this study, it should be kept in mind that Brown and Birley used a highly selected sample of schizophrenic patients. They included in their study only hospitalized, acutely psychotic patients. That is to say, patients who had a recent, clear-cut and datable onset or exacerbation of schizophrenic symptoms and who might have been expected, on clinical grounds, to confirm the major hypothesis under study (Rabkin 1980:419).

A second important observation emerges from a later paper (Brown et al. 1973b) in which Brown and his co-workers scored the data from their schizophrenic patients with a measure of impact. The measure utilized was 'contextual threat', a concept that relies upon common sense judgements concerning the severity of an event's threatening implications and length of time required to resolve them. It was found that only 28% of the clinical subjects taking part in Brown and Birley's study reported at least one life event of a ‘markedly or moderately threatening’ character in the final 3-week period preceding illness onset and no more than 36% of the total patient series reported such events during the full 3 months of the study. On the basis of these figures, it is possible to estimate that a substantial proportion, perhaps as much as 75%, of the patients interviewed for the Brown and Birley study failed to report at least a single occurrence that meets the criteria laid out by Zubin and Steinhauser (1981:492, quoted above p. 72) for a 'triggering event'.

In the Brown and Birley study, the use of an optimally selected sample of schizophrenic patients has yielded statistically significant, yet relatively weak results. These findings recall Paykel's (1978:251) observation that: '... the event is only responsible in part for the onset of [psychiatric] illness, and the proportion of the causation that can be attributed directly to it may not be large.' Brown et al. (1973a:172) conclude in a similar vein, suggesting that even though a causal effect of events is present in about 50% of the cases studied, '... in a majority of cases they trigger an onset which might well have occurred quite soon anyway.' Bebbington (1980) has argued that such findings should not be unexpected in psychiatric epidemiology since it is usually the case that we are 'merely sampling from a pool of causal factors.' With regard to the kind of data discussed above, he (1980:319) notes that:

'it will be concluded that while there is an association between life events and disorder, life events are neither sufficient nor necessary for psychiatric disorder. If we accept the methodology of causality this situation can be represented as p + z → q where z is a further causal factor unknown on the basis of the above data.'

In the following sections of this chapter, I will develop some of the implications that flow from the ideas put forward by authors like Bebbington and Paykel. Specifically, I will discuss certain problems with the concept of life events that have contributed to the disappointing results outlined above, as well as make some suggestions concerning the manner in which a broader perspective on the socioenvironmental inputs affecting schizophrenic patients may emerge from the current impasse.

**Stress, life events and the vulnerability to illness**

Given the above remarks, it seems reasonable to assume that the 'z' in Bebbington's equation represents the patient's inherent vulnerability to illness. Such an assumption would be in error. Instead, 'z' stands for a 'pool of causal factors' which includes a number of other psychosocial variables, as well as the contribution made by the patient's underlying vulnerability or liability to illness. It is useful in approaching this matter to start with a few comments on the concept of 'stress' and the role it has played in recent theorizing about the nature of schizophrenia.
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Many investigators (e.g. Rosenthal 1970, Wing and Brown 1970, Zubin and Spring 1977, Wing 1978, Strauss and Carpenter 1981, Gottesman and Shields 1982, Neuchterlein and Dawson 1984) suggest that an underlying core defect, vulnerability or liability to illness is necessary for the appearance of schizophrenia symptomatology. Except in the case of a small percentage of very 

malignant conditions, however, this liability to illness is not sufficient, in and of itself, to result in the appearance of a schizophrenic phenotype. The second key feature of these models is a reliance on the concept of ‘stress’ as a sort of umbrella term to describe the socioenvironmental input required to provoke the appearance of manifest symptomatology. ‘Stress’ is a notoriously obscure concept and none of these authors attempt to provide a precise definition of how they are using the term. As a rule, however, these investigators generally think about stress in terms of socioenvironmental inputs (e.g. life events, parental criticism) the significance of which are measured by assumed disruptions or alterations in biological, physiological, emotional, or behavioral homeostatic functioning (cf. Spring 1981:26-28).

We are now in a position to ask why, given the centrality of the concept of stress to current theories of schizophrenia, life event studies have not been more robust in their empirical findings. In the following, I wish to put forward the idea that it has been a serious conceptual error to identify the concept of ‘life events’ directly with the concept of ‘stress’ as described above. I will argue, instead, that the relationship between life events and stress is problematic in nature and must be assessed in a more informed manner than is usually employed. I also wish to suggest that life events, to the extent that they can be considered stressful, represent a rather limited category of the full range of environmental inputs that are involved in determining the onset and the course of schizophrenic illnesses. In other words, it is my position that life event investigators have had to be satisfied with less than definitive results because they have been collecting information about a non-homogeneous category of phenomena, while at the same time ignoring a number of other factors that are relevant to the outcome they wish to predict.

How are we to define ‘life events’? At first, the idea of a ‘life event’ seems straightforward and self-evident. It is easy to give a number of common sense examples that illustrate what we would all agree are life events, e.g. the loss of a job, the death of a spouse, the birth of a child, a sudden illness or an unexpected accident. Yet, once we move off the level of uncomplicated common sense examples and try to abstractly conceptualize what it is we are trying to measure, things suddenly become much more difficult. Consider the following comments on the definition of life events by Dohrenwend and her co-workers (1978:207):

‘Investigators who have offered definitions of life events have either implicitly or explicitly been guided by the qualification ‘stressful’; that is, they have indicated what they consider could be reasonably meant by stressful life events. The common denominator of these definitions is objective occurrences of sufficient magnitude to bring about change in the usual activities of most individuals who experience them. This common denominator seems to be to us as close as we can come to a workable definition of what is to be sampled in creating a list of life events in the context of studies of life stress.’

Notice that Dohrenwend and her co-workers do not identify ‘life events’ with the concept of ‘stress’. Instead, ‘stress’ serves as a qualifying term that points us towards the subgroup of recent life events that are important for measurement. In order to make this distinction between ‘stressful’ life events and all the rest of the life events reported by an individual, we must use the criterion of ‘objective occurrences of sufficient magnitude’ to bring about a change in an individual’s usual activities. There are a number of rather difficult assumptions underlying this criterion of choice. First, this definition tends to assume that people live in relatively routinized life worlds with stable patterns of activity that characterize their everyday existences. This is a very problematic assump-
tion to make about many middle class individuals without mental disorders, let alone schizophrenic patients, particularly those who have been recently discharged from a hospital into the community (see Schwartz and Myers 1977). At the very least, it is necessary to recognize that certain segments of individuals' everyday life worlds may be highly routinized, while other segments may be less routinized or remain quite chaotic for extended periods of time. Second, and far more important, there is a tendency to assume that the routine, repetitive patterns that characterize the everyday lives of patients are somehow non-stressful and that 'objective occurrences' which cause a behavioral change always constitute an increment of stress. There has been little or no recognition of the possibility that schizophrenic patients may live in routinely stressful everyday situations which may be alleviated through objective occurrences capable of resulting in behavioral change (cf. Brown and Harris 1978:Appendix 1). In other words, it is quite possible that many life events that fit the definition provided above by Dohrenwend et al. (1978) could act to reduce the overall level of stress experienced by the patient rather than increase it.

Consider also the definition of life events put forward by Brown and Harris (1978:83): 'Life events usually entail change and this they do in lives built around routine... The significance of life events must be sought, we believe, in the interplay of the exceptional with the usual.' In this quotation, Brown and Harris correctly, to my mind, identify the concept of life events with a 'change' occurring in a routinized pattern of everyday life. Beyond this emphasis on change, there is also an impulse to insist that the types of changes properly called 'life events' must be datable, in terms of impact or first awareness, and relatively non-repetitive in nature. As I suggested above, the relationship between any specific change and an individual's stress level is a problematic issue. It is difficult, for example, to call a dispute with a parent or spouse a 'life event' if the respondent lives in a setting characterized by chronic, ongoing conflicts with other members of the household, unless, of course, something beyond the routine level of disorder takes place, like a serious injury to one of the participants. What is more, it is important to ask whether a patient who leaves such a routinely hostile environment is actually experiencing an increment in overall levels of stress. It seems more reasonable to suggest that a change of residence in such a case actually reduces rather than increases the patient's overall level of stress.

The problematic nature of the relationship between changes occurring in the patient's routine life world and assumed levels of stress ultimately raises the issue of 'meaning' in life event research. That is to say, how are we to assess for a given patient the 'meaning' of a reported change in his/her life world, e.g. whether it is a stress-provoking or a stress-reducing change? I think it is important to begin by recognizing that the problems of meaning with which we should be concerned in life event studies are primarily determined by social and cultural factors rather than the individual's personal psychology. Over a decade ago, Paykel and Uhlenhuth (1972) observed that despite individual differences, 'there is a common core to the way in which the members of any society experience an event.' This observation reflects a fundamental principle of sociological analysis. To paraphrase Schutz (1971:229): 'a man is born into a world that existed before his birth, and this world is from the outset not merely a physical but a sociocultural one.' The latter is a preconstituted and preorganized world of everyday, taken-for-granted meaning, the particular structure of which is the result of historical processes and, therefore, varies widely among different cultures. It is this preconstituted, common sense world of everyday life that is the fundamental basis for routine patterns of social interaction and the sense of shared meanings that underlie collective experience. As a social reality, these normative structures may be studied as 'objective' phenomena that exist independent of any particular individual in a society. The objective character of the culturally constituted normative structures described above makes it possible for outside observers to rate the 'meaning' of a life event from the common sense point of view of an average.
well socialized member of the group. In other words, the stressfulness of life events must be assessed in terms of the group's culturally patterned consensus (i.e. norms) concerning the significance of reported changes, rather than an individual's personal assessment of idiosyncratic response to a specific situation.

This approach to the problem of meaning in life event research does not deny that individuals also demonstrate idiosyncratic or 'subjective' patterns of experience resulting from their own personal history or even their illnesses. It is simply that personal systems of meaning have little relevance for life events research. From a methodological perspective, Brown (1974) has pointed out that since subjective assessments of meaning have no grounding outside of what the patient reports, it is impossible to determine how this assessment has been influenced by the patient's experience of illness. In my own work with schizophrenic patients, the most compelling reason for ignoring personal systems of meaning is the observation that they often fluctuate wildly or may be severely distorted as the result of the individual's psychiatric illness. In such cases, rating the meaning of an event according to the patient's idiosyncratic or 'subjective' assessment is to allow the disease process to determine what is and what is not stressful. That is to say, if the patient is about to have an illness onset, then he may become sensitive to any external occurrence, no matter how minor, and report inflated stress scores. On the other hand, if everything remains placid on the internal biochemical front, the same kind of occurrences may be totally ignored by the patient. This raises the danger that life event research, when it depends on the patient’s 'subjective' assessment of the stressfulness of events, is not measuring the effect of external stressors on an internal vulnerability to illness, but precisely the reverse.

Despite the fact that an 'objective' approach to the problem of meaning provides a theoretical basis for assessing the 'stressfulness' of changes reported by psychiatric patients, it is not a panacea and, in practice, there still remain a number of difficult methodological problems that have not been adequately addressed in current studies. For example, it has become clear that common sense, culturally constituted systems of meaning may vary widely between different ethnic and class groups within the same social system. Inaccurate ratings oftentimes result when outside observers are unfamiliar with the value systems of the subcultural groups from which their respondents come, e.g. a middle class, white male rating the stressfulness of an event reported by a poor black female respondent. A second example concerns the effect of contextual circumstances on the meaning of changes occurring in a patient's life world. Here it is important to recognize that the stressfulness of many events vary widely according to the circumstances that surround them. By way of illustration, a 'job change' may have very different meanings depending upon whether it was voluntary or not, the effect upon salary and social status, the nature of the new duties to be performed, the supportiveness of the network of co-workers that may be lost, and the like. Even though this may appear to be an obvious point, a large measure of the life event research that has already been carried out has ignored such contextual factors in the collection and rating of data.

Unfortunately, there does not appear to be any simple solution to the kinds of problems outlined above. There is, however, a more ethnographic interest in the life world of the patients we study. Suffice it to say here that what I have termed 'more informed' approach to the rating of life events requires that investigators take greater interest in what anthropologists term a 'thick description' (Geertz 1973) of the informant's social resources and cultural strategies for dealing with change. The real challenge for future life event investigators is to move beyond the natural history approach utilized by many anthropologists and sociologists through the development of more sophisticated instruments and methodologies for the reliable collection and quantification of descriptive contextual data.
Toxic environments

To this point we have focused exclusively on the concept of life events, attempting to clarify the differences between major investigators and indicate a number of conceptual flaws in past studies. In an effort to clarify the concept, it has been argued that life events should be defined in terms of objectively assessed changes occurring in the individual's taken-for-granted, routine patterns of everyday life. Given such an approach, the data available from empirical studies lead to the conclusion that recent stressful life events, although potentially important, have only limited implications for the onset and course of most schizophrenic episodes. From a psychosocial perspective, these findings suggest that the totality of environmental inputs capable of provoking schizophrenic episodes in vulnerable individuals cannot be fully subsumed under the rubric of recent stressful life events. It would appear that some other kind(s) of environmental inputs must be operating on the patients' vulnerability to illness if a social reactivity to life stress is to play the fundamental role proposed for it by many recent theorists.

This line of reasoning also suggests that it may be profitable for life event investigators to pay greater attention to the significance of potentially negative environmental inputs which have been shown to be a commonplace or repetitive feature of many schizophrenic patients' social milieu. The staff of the Biometrics Research Unit at the Highland Drive Veterans Administration Medical Center in Pittsburgh, Pennsylvania, have been working with the assumption that we can locate and empirically measure at least four classes of environmental settings that are routinely stressful for individuals with a vulnerability to episodes of schizophrenia:

1) Cognitively confusing environments. The key aspect of these environments has been termed 'communication deviance' (CD). Singer and Wynne (1967:148) point out that CD probably is a consequence of underlying attentional defects in the relatives of schizophrenic patients. Such individuals fail to establish and maintain shared foci of attention when they interact with others. As a result, the other individual in the transaction tends to become 'lost, confused and is finally left with a sense of pointlessness that is distressing, yet hard to articulate.'

2) Emotionally critical or intrusive environments. A number of recent studies (see Kuipers 1979; Leff et al. 1982; Vaughn et al. 1982; Falloon et al. 1982) have implicated manifest expressions of emotional over-involvement, criticism and hostility by the close relatives of schizophrenic patients with relapse episodes of the disorder. These studies, carried out under the rubric of 'expressed emotion' (EE) suggest that negative assessment of the patient's behavior or self, or an invasive over-concern for the patient's welfare may provoke florid episodes of illness.

3) Overly demanding environments. It has been shown that family settings (Katz and Lyerly 1963; Katz 1966; Hogarty 1975) in which relatives' expectations are too demanding of the schizophrenic patient may lead to a negative outcome. Similarly, a number of studies (Hogarty and Goldberg 1973; Hogarty et al. 1979) have indicated that rehabilitation programs that require schizophrenic patients to perform at too high a level may provoke relapse episodes of illness. The common denominator in both situations are the demands for behavioral performance by family members or therapists that are beyond the capacities of the schizophrenic patient.

4) Threatening or demoralizing physical environments. The characteristics of the neighborhood and the immediate personal environment are hypothesized to play a part in exacerbations of schizophrenic illnesses (Zubin and Spring 1977). Here we may include personal safety, as well as the amenities and overall quality of life experienced by the patient. This factor is the least studied of the above and the one that has the greatest potential importance for the group of patients lacking a family.
It should be noted that all four of the categories of environmental stressors outlined above contrast with recent life event stressors in that they represent commonplace ongoing characteristics of the patient's social milieu. They may be viewed as a relatively constant source of pressure (or tension) with which the patient is forced to cope on a day-to-day basis. Only the second class of stressors (i.e., expressed emotion variables) may not fit this description. Presently, it is impossible to say whether levels of criticism and over-involvement measured at one point in time are constant aspects of the patient's social milieu or whether they vary in relation to perceived levels of pathology and tension in the patient. If the latter were the case, high levels of criticism and over-involvement might be viewed as latent stressors which are triggered by changes in the patient's behavior, a situation, moreover, that has interesting implications for the manner in which apparently benign environments may be able to transform themselves, under the proper circumstances, into highly stressful settings.

Two caveats should be mentioned with regard to the categories of environmental stressors outlined above. First, these categories should not be viewed as mutually exclusive. In fact, we might expect to discover that patients who are prone to experience one category of stressors (e.g., high EE) are likely also to be subject to others (e.g., an over-demanding environment). The probable effect would be to produce highly toxic environmental situations characterized by very negative clinical outcomes. Second, it is not my purpose to claim that the above list of environmental stressors is complete or comprehensive. Additional specific factors may be shown to exist in future research or it may be necessary to include a general category of 'ongoing difficulties' or 'hassles' similar to the one used by Brown and Harris (1978:130-137) in their depression study.

A simple description of these categories of environmental stressors begs a number of important questions. Unfortunately, we know almost nothing about the interactive effects of different categories of stressors. It is our suspicion, however, based on what evidence does exist, that different types of environmental inputs may combine to create particularly noxious settings for the schizophrenic patient. For example, how do the effects of the above kinds of stressors interact with life events? Some time ago, Brown and his co-workers (Brown et al. 1973a:169) suggested that:

"...we should systematically examine the hypothesis that for schizophrenic patients most life events serve to trigger the florid onset of symptoms in those who are predisposed and are experiencing tense and difficult situations either at home or at work or in some other key relationship."

By way of illustration, certain stressors like a highly critical or intrusive family environment may act to exacerbate the consequences of a life event (e.g., losing a job or separating from a spouse) for the patient's clinical state. In essence, the patient's immediate relatives may respond to any evidence of pathology or to a failure to meet their performance expectations in a highly critical fashion, creating the conditions for a further deterioration in the patient's clinical state. On the other hand, more benign social situations may act in a corrective manner, reducing or, at least, not exacerbating the effect of various stressors on the patient's clinical state. One example is the kind of household that relaxes performance demands or permits a temporary withdrawal from social interaction when the patient begins to feel over-stimulated and vulnerable to psychotic experiences.

There is likewise a growing body of evidence (see Kuipers 1979; Falloon et al. 1982; Leff et al. 1982) to suggest that stressors of the kind outlined above may play a causal role in the onset of schizophrenic symptomatology even in the absence of recent life event stressors. At the present time, very little is known about how these various kinds of environmental stressors interact. Again, the evidence that is available (e.g., Doan et al. 1981) suggests that these stressors probably interact together to multiply the toxicity of the patient's immediate setting. It would not be unexpected,
moreover, for factors such as an easily stimulated critical attitude towards the patient to be associated with demanding performance expectations on the part of household members. Similarly, there is strong reason to presume that poverty and isolation in a physically demoralizing setting have the capacity over time to erode the resilience of the patient’s coping efforts and exhaust his/her resistance to psychotic experiences.

In this section I have tried to indicate several kinds of important environmental stressors that have been largely overlooked by life event investigators. It has been my suggestion that these classes of stressors represent central components of Bebbington’s (1980) ‘pool of causal factors’ associated with the onset (and course) of schizophrenia episodes. The failure to account for effects of these factors may go a long way towards explaining the relatively disappointing results of prior studies of life events and schizophrenia. The inclusion of multiple sources of stress in research on the social reactivity of schizophrenic patients requires that we move away from the current focus on single factors (e.g. life events, communication deviance or expressed emotion) towards the more flexible and comprehensive concept of ‘toxic environments.’ Within such a framework, the onset of schizophrenic episodes can be provoked by a number of socioenvironmental factors which, in some cases, may be acting independently (e.g. multiple stressful life events, Dohrenwend and Egri 1980; a severely hostile household environment, Vaughn and Leff 1976) and, in others, may interact together to produce very high overall levels of stress. The key problem at the present time would seem to be the development of appropriate research strategies to study the simultaneous effects of multiple socioenvironmental factors on the clinical state of schizophrenic patients.

Summary and conclusion

This chapter began by recognizing that wide differences of opinion still exist between investigators concerning the clinical significance of life events for the onset of schizophrenic episodes. It was also suggested that this debate is largely theoretical in nature, since most investigators agree that the currently available evidence from empirical studies points in the direction of weaker interpretations of the causal role of life events. The fundamental problem in the current data for advocates of stronger interpretations is simply that too few patients report life events of a sufficient magnitude immediately preceding illness onset to support a common sense clinical conclusion that these occurrences have a substantial causal effect in most (or even many) schizophrenic episodes. Indeed, a number of studies indicate that recent stressful life events can play a sufficient and/or necessary role in the onset of some schizophrenic psychoses; it is just that it does not seem to happen with the frequency that was originally expected. In this chapter, I have tried to suggest these findings make good sense if one looks at them in terms of the epidemiological perspective advocated by authors such as Bebbington (1980) and Paykel (1978). Essentially, this perspective cautions us against single factor hypotheses; it emphasizes, instead, the idea of a ‘pool of causal factors’ associated with the onset of schizophrenic episodes, none of which may explain more than a small proportion of the variance observed in actual clinical practice.

As a prelude to the idea of ‘toxic environments’, succeeding sections of this chapter briefly reviewed the role played by ‘social stress’ in recent theorizing about schizophrenia and its relationship to the concept of ‘life events.’ A large proportion of this discussion focused on the question of how we should limit and define the concept of ‘life events’ in order that it may continue to serve as a viable research tool. In this connection, I criticized the habit of many investigators to automatically identify the occurrence of life events with increments in an individual’s overall level of stress. It was argued, instead, that life events are properly defined as changes occurring in the
As the patient to be assessed must. Similarly, the demoralizing setting created and exhaust his/her mental stressors that suggest that these "pool of causal factors" to account for effects on the current focus (emotions) towards the such a framework, the environmental factors surrounding life events. Dohrenwend (1976) and, in others, the problem at the present to study the simultaneous schizophrenic patients.

Though the difference between investigators in the episodic episodes. It was investigated that agree that interpretation data for advocates a sufficient magnitude of conclusion that these psychiatric episodes. Indeed, the event is not necessary to happen with these findings suggestive of the effects advocated by the respective cautious us about the role of causal factors' small but more than a small fraction of this chapter briefly schizophrenia and its relationship on the question. It may continue to influence many investigators to their individual's overall level of stress occurring in the patient's routine life world, an approach that leaves the relationship between specific life events and the individual's overall level of stress open to independent empirical determination. The question of how such an empirical determination should be made led to a brief discussion of the problem of 'meaning' in life event research. Here it was argued that common sense, culturally defined normative structures exist which make it theoretically possible for informed outside observers to differentiate what are properly termed 'stressful' life events from irrelevant or potentially beneficent (e.g., stress reducing) changes. Even though the implementation of such an approach to the assessment of life events admittedly involved numerous practical difficulties, it seemed preferable to alternative approaches that threatened to confuse the direction of causal action between illness processes and environmental inputs.

Finally, it was noted that a circumscribed and more precise concept of life events does not necessarily speak against the significance of psychosocial variables for the onset of schizophrenic psychoses. It merely suggests that the totality of environmental inputs capable of provoking schizophrenic episodes in vulnerable individuals cannot be fully subsumed under the rubric of recent stressful life events. In the final section of this paper, particular attention was given to four classes of potentially negative environmental inputs which contrast with life events in that they appear to be commonplace or repetitive features of many patients' everyday social milieu. Specifically discussed were (1) cognitively confusing environments, (2) emotionally critical or intrusive environments, (3) overly demanding environments and (4) threatening or demoralizing environments. It was argued that such factors may be involved independently in the onset of schizophrenic psychoses or they may interact with recent life events to increase the patient's overall levels of tension and stress. This model of multiple, potentially 'toxic' environmental inputs recalls Bebbington's (1980) concept of a 'pool of causal factors' associated with the onset of schizophrenic episodes; from a theoretical point of view, it is certainly more flexible and comprehensive than approaches which depend upon single factors, and it appears to be in far greater agreement with the data available from empirical studies. At the present time, it is difficult to speculate about the practical problems involved in operationalizing such a model. Yet, if such a model could, in fact, be tested empirically, I suspect that it would yield significant improvements in our capacity to identify schizophrenic patients at a 'high risk' for periodic relapse episodes and negative overall illness outcomes.

References


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