Methodological Challenges in Coping and Adaptation Research

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Investigators concerned with peoples' ability to cope and adapt to their life circumstances are faced with a multitude of methodological challenges. Many of these challenges have been discussed at length by Lazarus (1993). The following discussion highlights these and other challenges at each step of the research process.

Assumptions and Values

Investigators of coping and adaptation processes and outcomes are often theoretical purists. While the test of one theory may advance understanding, this purity of perspective leaves alternative explanations unexplored. A theoretical pluralist would advocate an explanation of a person's predicament from a variety of theoretical vantage points (coping and adaptation, biological and sociological) in search of the variables which combine with coping variables to explain adjustment outcomes. For example, in research we have conducted, poorly adjusted chronically ill persons with poor problem solving capacity who lived alone or with low levels of purpose-in-life, were the patients most likely to benefit from nurse counselling in addition to usual physician specialist clinic care. If they were poorly adjusted yet able to solve problems and lived with someone, they did just as well with physician care alone (Roberts, et al., 1994). Moos (1992) has also advocated the study of these interactions between pretreatment life context variables and amount and type of treatment. Imagine how much less we would know if we took a pure versus pluralistic theoretical perspective.

Inherent in most of coping research is an assumption that subjects under study are experiencing stressful, traumatic, or burdensome circumstances. It is also assumed that the context of the situation along with a person's resources shapes the appraisal. The net appraisal shapes the response, the thoughts, emotions and/or behaviours (Lazarus & Folkman, 1984). Generally, it is believed that these thoughts, behaviours, and/or emotions are modifiable if the individual can engage in alternative appraisals which are assumed to be
under a person's control (Meichenbaum, 1991). The field of coping and adaptation research largely ignores the possibility that the "appraisal" process itself might be altered by biological and/or neurochemical disturbance, depressive and mood disorder states (Michels & Marzuk, 1993). These physiological disturbances are not always under a person's control and may require remediation before the results of self control and reappraisal could be expected.

Much of coping and adaptation research focuses on the individual or family system and ignores the interplay between the person/family circumstance and the larger intersectoral service system or surrounding environment. Moos (1992) offers a framework for the integrated study of the interaction among these variables. Such knowledge is a prerequisite to the careful tailoring of treatment strategies to a person's whole circumstance.

Most of the knowledge we have about how people cope with adversity comes from research done on North American clinic samples. There is little cross cultural research with the exception of the work of the late Antonovsky (1993). North American coping and adaptation research ignores people with similar or worse circumstances, who are non-users of formal services or in vastly different cultural circumstances. How does one cope and adjust in Rwanda?

Much of the literature assumes that there are more or less effective patterns of thinking or behaviour when faced with adversity, and one has to ask effective from whose point of view? A colleague investigated the nutrition habits of some mothers on welfare which got worse after the social work intervention compared to a control group. As one mother explained, "you taught us not to steal, so the kids eat hamburger and macaroni rather than steak". While the nutritional value may be comparable, the mother perceived her situation as worse.

The whole field of coping and adaptation is premised on the notion that accepting challenging circumstances is a good thing. Well, when is not adjusting, not tolerating circumstances even in North America, ultimately the more wholesome state of affairs? Consider children acting out because of marital disharmony or abusive circumstances at home. The way they cope and their failure to adjust can bring immediate harm to themselves personally, but unwittingly in time this coping strategy can also bring attention to the whole family. Not coping with circumstances is not always a failure but merely a step in the pathway of life for people who live with and/or in chronic circumstances. There are a dearth of prospective longitudinal studies which document how these trajectories unfold.
The Question

Coping is a complex process which most commonly is conceptualized as a response to a person-environment relationship. Because different experiences may elicit different coping efforts, it is necessary to assess behaviours as they occur in response to a particular situation. Studies often are limited by their failure to identify the specific coping domain for which behaviours are reported. Subsequently, coping is not analyzed as a stressor-specific response.

Moreover, the phase of the stressful event rarely is addressed so it is not apparent at what the reported coping efforts are being directed. Coping can occur in anticipation of a stressful event, during exposure, and during the aftermath; each phase has a different potential repertoire (Stone, Greenberg, Kenney-Moore, & Newman, 1991). Research questions must clearly specify the context of coping as well as the phase(s) of the coping process, if interpretation of data is to be meaningful.

The vast majority of coping and adaptation research consists of cross-sectional studies of association. There are few longitudinal studies or rigorous evaluations of interventions designed to strengthen the person's capacity to cope with adversity which also control for the bias inherent in the attention or the social support derived from the intervention itself. When intervention research is done, it usually is addressing questions about: "Does the intervention or treatment strategy work?" The more important question is For Whom? Under what circumstances? Who benefits? Who worsens? What mix of strategies collectively strengthen versus harm people's capacity to live with their circumstances? In Roberts et al. (1994a,b), chronically ill out-patients who lived alone and had poor problem-solving coping behaviour at baseline benefitted from counselling whereas those who lived with someone and had good problem solving behaviours at baseline, got worse with counselling. This latter question generates research more relevant to these times of restraint and the need to more carefully target clientele likely to benefit from our services. Research studies that deal with these issues are now being completed (Roberts, J., Browne, G., Streiner, Gafni, A., Pallister, R., et al., 1994a,b; Byrne, C., Brown, B., Voorberg, N., Schofield, R., Browne, G., Gafni, A., Schuster, M., 1993-95; Browne, G., Byrne, C., Roberts, J., Steiner, M., Links, P., Boyle, M., Gafni, A., Watt, S., Offord, D., 1994-1999; Hay, I., Browne, G., Chambers, L., Gafni, A., Roberts, J., Muir-Gray, J.A., Sackett, D., Macpherson, A.S., 1991-94; Roberts, J., Browne, G., Milne, C., Spooner, L., Gafni, A., Watt, S., Drummond-Young, M., LeGris, J., LeClair, K., 1994-1996).
Methods

i) The Setting/The Sample
As noted previously, coping and adaptation research is largely conducted on non representative, convenience samples of people attending health or helping facilities. These users of formal service can differ significantly from non users of service in important ways which affect our conclusions. Users of services “notice” symptoms and stressors and thus, their tendency to appraise a situation as harmful, or frightening is more likely than in a group of non users of formal services (Hay, W.I., Browne, G., Roberts, J., & Jamieson, E., 1994; Milne, C., Saaco, C., Celinski, G., Browne, G., & Roberts, J., 1994).

ii) The Design
There are all too few well controlled studies of interventions designed to strengthen people’s resourcefulness in challenging circumstances. We need to study the more relevant questions of mix of interventions in ways that minimize attention or placebo biases through the use of 3-arm versus 2-arm trials. For example, in the Hay, Browne (1991-94) study, seniors who screen positive for a treatable circumstance are randomly assigned to be I) a case not found, II) a case found and measured but not treated, or III) a case found, measured and treated. In this way, the effects of measurement can be separated from the effects of attention and both further separated from the effectiveness of treatment. Examples of studies which control for the attention bias are Roberts, J., Browne, G., Streiner, Gafni, A., Pallister, R., et al., 1994a,b; Byrne, C., Brown, B., Voorberg, N., Schofield, R., Browne, G., Gafni, A., Schuster, M., 1993-95; Browne, G., Byrne, C., Roberts, J., Steiner, M., Links, P., Boyle, M., Gafni, A., Watt, S., Offord, D., 1994-99; Hay, I., Browne, G., Chambers, L., Gafni, A., Roberts, J., Muir-Gray, J.A., Sackett, D., Macpherson, A.S., 1991-94. These times of economic restraint are perfect opportunities to “ration” services randomly as agency policy (Browne, G., Byrne, C., et al., 1994-99), thus minimizing the biases associated with client consent to services and increasing the generalizability of results beyond volunteers. The idea that subjects do not consent to specific interventions, but instead just to the study is an ethical decision that may be difficult for some.

iii) Measures
A variety of tools to measure context-specific coping have been developed. The popularity and ease of administration make these self-report questionnaires attractive research instruments, but problems inherent in their use limit the quality of data gathered. The use of questionnaires assumes that individuals are aware of their coping efforts but behaviours are not necessarily deliberate and conscious, and may be part of daily routine (Cohen, 1987; Kessler, Price, & Wortman, 1985). Thus self reports may not accurately reflect the scope of coping responses. Further-
more, because respondents usually are asked to reflect retrospectively on coping, social desirability, and recall bias can create additional measurement error. Finally when self report is used to measure both coping processes and adjustment outcome, the possibility increases that antecedents and consequences have been confounded (Lazarus, 1993).

The research on coping and adaptation is moving toward concepts and measures of resilience and resourcefulness (Antonovsky, 1993; Mangham, C., Reid, G., McGrath, P., & Stewart, M., 1994), in opposition to measures of deficiency. This is an “either/or battle” for the correct measure of outcome in studies of the “human” predicament. An integrated perspective assumes that one is, at once, deficient and resourceful or paradoxically, strong because of his/her deficiency. Most research adopts the deficient or resourceful framework when in reality a comprehensive assessment of outcome would acknowledge both of these states exist simultaneously. What conclusion do you make with data that show 34% of clinic outpatients are not well adjusted to their illness yet 67% of these have observed improvements in their adjustment to illness since their diagnosis (Arpin, et al., 1990)? Coping and adaptation research needs to be placed within the larger framework of a person’s life, motives, and beliefs so as to make sense of apparently divergent findings.

iv) The Sample Size and Analysis
Future analyses need to capture the myriad of strategies a person uses simultaneously when faced with adversity. More complex questions with more complex factorial designs assume some interaction between person characteristics and treatment strategy (Roberts, Browne, Streiner, et al., 1994a,b). Sample size is more difficult to calculate in this situation. Do we always examine our data for interactions among variables prior to testing hypotheses of difference? If this step is ignored, one can erroneously conclude “no difference” between groups when, in fact treatment benefits resulted for people with certain characteristics and a worsening occurred for people with the opposite characteristic. Thus the worsening masked the benefits (Roberts, Browne, Streiner, et al., 1994a,b).

Conclusions/Interpretation
Different points of view taken by providers versus investigators can affect the interpretation of the same data. For example, what should we conclude from recent studies—34% are poorly adjusted to their chronic illness or should we say 66% are coping with little change in their life in spite of their illness (Roberts, Browne, Streiner, et al., 1994b; Arpin, Fitch, Browne, et al., 1990)?

Interpreting data involves operating from assumptions about what is important to emphasize and reflect the values of the parties involved. In our
study of shared clientele that were receiving service from two agencies, (Browne, Roberts, Byrne, et al., 1994), one interpretation of the data was that 47% of public health nurse visits (N=4600) are to clients on social assistance. From the point of view of social assistance providers, only 4 to 5% of those on social assistance in our region (N=100,000) receive the help from public health nurses.

As investigators involved in coping and adaptation research, we have a new appreciation for the proposition that there is no such thing as value-free knowledge (Browne, Watt, Roberts, Gafni, & Byrne, 1994). Many points of view are required for a comprehensive understanding of issues under scrutiny.

**Recommendations**

In summary, a pluralistic perspective is advocated for nurses conducting coping and adaptation research. The pluralistic perspective seeks to explain a person's predicament from a variety of points of view, the real meaning of the concept of rival hypotheses.

Mental health nurses are in a unique position to study coping in situations where the appraisal process itself may be altered by biological alterations. An integration of this perspective within coping and adaptation research is warranted. In addition, nurses could exhibit more questioning of when not accepting or not adjusting to a person's circumstances is, in fact, the more healthy response.

In studies of prognosis, coping research in the future should control for the stage of the stressful event, including people at early and uniform points in time. Repeated measures of coping with changing circumstances could inform our understanding of intra-individual variation and the mix of characteristics, strategies and circumstance which mold favourable outcomes. Coping research is moving toward reconceptualizations of people as resourceful and resilient. Much more is needed to be known about these persons who are probably not frequent users of formal services. New community based settings are needed for our research. Interdisciplinary and intersectoral service perspectives are required to educate the myraid of interpretations that can be made of the same data.
References

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