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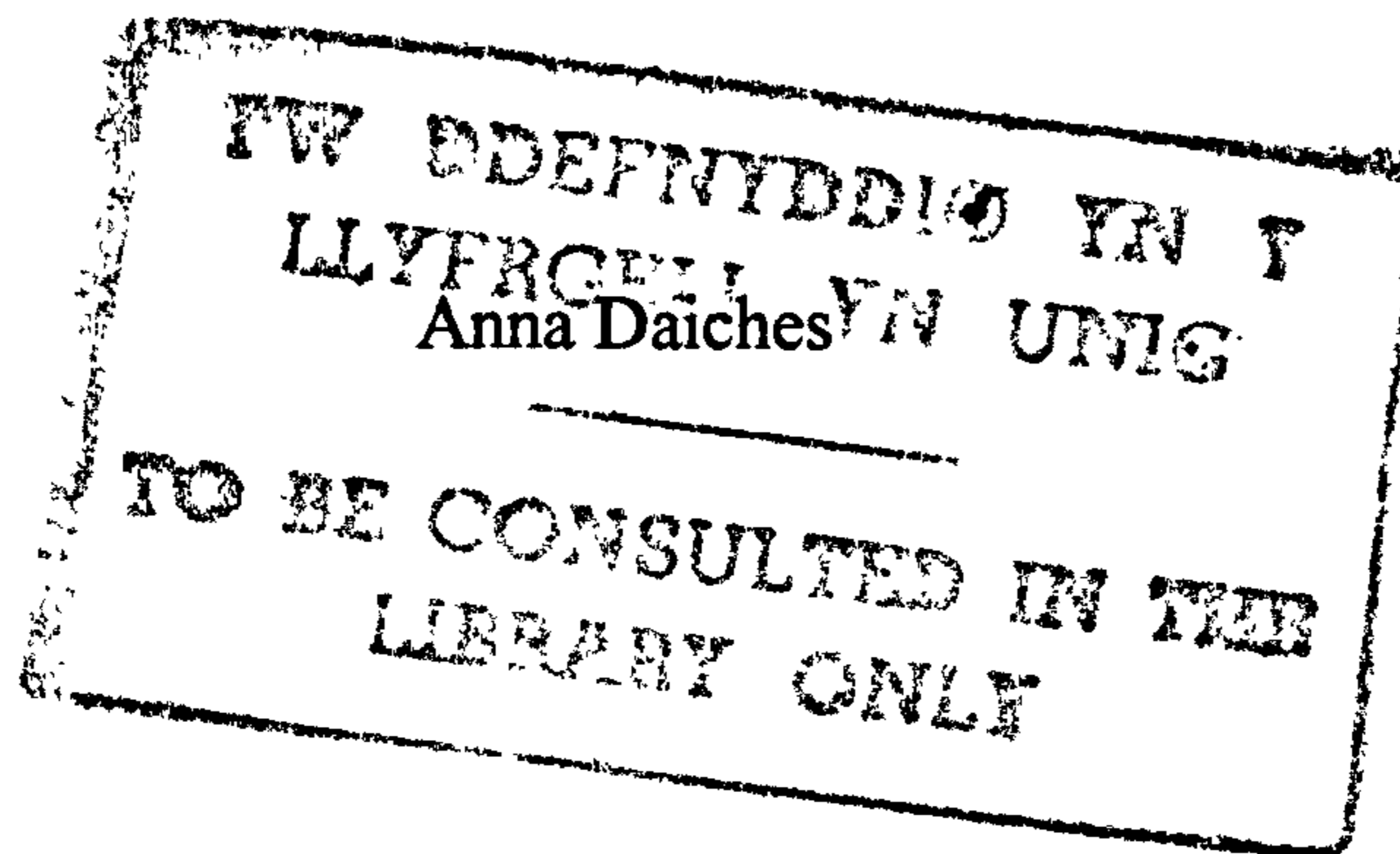
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LANCASHIRE CLINICAL PSYCHOLOGY COURSE

(Affiliated to the University of Wales, Bangor)

“A Multi-Method Investigation of the Relationship Between Life Stress, Coping

Strategies and Psychological Distress in Adolescents”



Submitted in accordance with requirements for the Doctor of Clinical Psychology, 1997



ABSTRACT

The relationship between life stress, coping strategies and psychological distress was investigated in a non-clinical population of thirteen to fifteen year olds (N = 159). The main aim of the research was to evaluate whether the effective/ineffective dichotomy was, clinically, the most useful way to understand coping responses. The study combined traditional psychological and social constructionist perspectives and utilised a multi-method approach.

The Birleson Depression Inventory (Birleson, 1981), the Life Events Checklist (LEC) (Johnson and McCutcheon, 1980) and the Adolescent Coping Scale (ACS) (Frydenberg and Lewis, 1993) were administered to all participants. A sample of twenty was then interviewed using a semi-structured interview schedule which combined questions from the Coping Process Interview (Seiffge-Krenke, 1995) and Narrative Therapy (White, 1995). Quantitative data was statistically analysed and qualitative data was described using content analyses of the interviews.

Levels of depression were shown to be relatively high amongst this group. The results revealed that minor life events were as salient for this population as more major change. Few life events were universally experienced as either positive or negative.

Results confirmed that there were significant correlations between coping strategies used and levels of depression. 'Solving the Problem' strategies were related to low levels of depression while 'Non-Productive Coping' was related to higher depression

levels. The adoption of these constructs as respectively 'effective' and 'ineffective' was not supported due to both the poor to moderate internal reliability of the Adolescent Coping Scale and the findings of the qualitative analysis.

Content analyses of the interviews suggested that there was a broad range of coping strategies that the participants themselves considered effective, including 'non-productive' responses. Appraisal was shown to be a key element of the coping process. The interviews also revealed that coping responses changed over time and were neither static in terms of the situation nor the individual.

These results were discussed in relation to findings in the literature and implications for clinical intervention and future research were highlighted.

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**“A Multi-Method Investigation of the Relationship Between Life Stress, Coping
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Introduction

This research aims to investigate how young people, aged between 13 and 15 years, respond to challenging life events. It endeavours to consider the events that regularly occur during this period that present challenges to psychological well-being and the responses available to these young people to meet those challenges. This in turn should indicate possible roles for clinical psychologists when these challenges become overwhelming.

In order to do this, a model will be presented of the relationship between these variables, in which life events are considered the input, psychological well-being the outcome, and coping the mechanism by which the two are linked. To fully explore this relationship the nature of both the input and outcome, relevant to this population, must be investigated in detail. However, the main aim of the research is to consider the nature of the coping mechanism at the heart of the model. Clinically, it is important to understand when this coping mechanism is 'effective' and when it is 'ineffective'. The central question is whether there are coping strategies that, independent of the individual or the situation, can be identified as 'effective' or whether it is clinically unhelpful to generalise effectiveness in this way.

The answer to the above question is dependent upon how effectiveness is construed and defined. Issues of construction and definition will be considered carefully throughout this investigation, which will attempt to heed the caution that "the categories with which we as human beings apprehend the world do not necessarily refer to real divisions". (Burr, 1995, p. 3). The above caution is part of the social constructionist perspective which will inform this research, alongside traditional psychological theory. To begin this investigation

the constructs of adolescence, psychological distress, challenge and coping will be considered in turn.

Adolescence

Adolescence is a term that is in common usage yet difficult to define. Each individual's experience of adolescence is unique, but for most it is a period of immense change and rapid development. Change is undoubtedly a risky procedure (Antonovsky, 1981) and the dominant story of adolescence in the white, European culture has evolved into one of turmoil, doubt and crises with the individual in an often continuous state of conflict with themselves, their family and society (Coleman and Hendry, 1990). This 'storm and stress' theory of adolescence has been the basis of much psychological investigation (Hyatt Williams, 1975). Psychoanalytic theorists (Blos, 1967) viewed adolescence as a discrete stage and ascribed to it the importance of the 'second individuation process' in which adolescents needed to disengage from the internalised mother figure in order to proceed into maturity.

The way in which psychologists, though not necessarily society at large (Jackson and Bosma, 1992), understand adolescence has been gradually changing over recent years. Empirical evidence has clearly shown that too much individual variation exists for young people of the same chronological age to be classified together along all dimensions. (Coleman, 1978; Coleman and Hendry, 1990).

However, for many young people of this age normative tasks, such as development of identity and achievement of independence, have to be negotiated in addition to the

considerable physiological and cognitive change that occurs during this period. Also, life events such as completion of schooling and first sexual relationships, are common to this group (Damon, 1983). Considering the amount of change that occurs during this period, adolescents are an important group to consider when attempting to explore the nature of coping.

Any transitional period that has the potential for a variety of developmental tasks and life events is likely to lead to an increase in both minor and major stressors (Seiffge-Krenke, 1993). For some individuals these tasks will be challenges that promote growth and maturity. For others the changes will be overwhelming and lead to developmental decline and problems (Rice, Herman and Peterson, 1993). An important research question is therefore what determines the particular outcome for each individual and how they respond to psychological distress. Before this question can be addressed it is necessary to consider what is meant by psychological distress.

Psychological Distress in Adolescence

Psychological distress and difficulties have traditionally been conceptualised as problems which are located within the internal psychology of the individual (Burr, 1995). The term depression, for example, whether understood as unconscious conflicts, neuro-chemical change, lowering of activity levels or self-defeating thought processes, is generally considered a definite, quantifiable entity, independent of the context in which it is defined. In making this point the idea of depression as an entity is not rejected; it is, however, helpful to

emphasise that adopting and investigating a concept such as depression involves the adoption of a certain perspective on the nature of psychological distress.

It is certainly the case that psychological distress, in the form of depressive mood, depressive syndrome and depressive disorder, rises markedly from childhood to adolescence, where it approaches adult rates (Kandel and Davies, 1982; Rutter, 1983; Kazdin, 1986; Kovacs, 1989). Compas, Orosan and Grant (1993) describe how depressed mood is reported by 15-60% of adolescents, while depressive syndromes and disorders are reported in 3-10% of this population (Merikangas and Angst, 1992).

There are obviously several other measures of psychological distress in adolescents and many have been used to investigate the relationship between life events and psychological well-being amongst this population. These include satisfaction with life and sense of future (Grossman and Rowat, 1995), and anxiety (Armistead, McCombs, Forehand, Wierson, Long and Faube, 1990). Although depression is just one form of psychological distress it has been demonstrated to have a high degree of co-morbidity with other symptoms and disorders such as anxiety (30-70%) and conduct and eating disorders (10-21%) (Compas and Hammen, 1993). Therefore, if psychological distress is considered a definite, quantifiable entity, depression is probably the most useful construct through which to approach any investigation.

As stated above 15-60% of adolescents are said to report depressed mood while 3-10% report what are considered to be the more severe, or overwhelming, depressive syndromes and disorders. This leads to the important question of whom to involve when investigating this form of psychological distress in adolescents. Even if the differentiations

between mood, syndrome and disorder are considered discrete classifications, it is unlikely that the differentiation between 'normative' and 'clinical' populations of adolescents is as solid. Steinberg (1987) describes at length the haphazard route from psychological distress to referral to mental health services for this population, a route that is generally navigated by parents and teachers rather than the young person themselves.

It is also clear that adolescents as a group are underrepresented in clinical populations, even though 10-20% of young people of this age group show severe emotional disturbance, approximately the same as the adult population (Graham and Rutter, 1985). Seeking professional help as a means of coping with a pressing problem was seen as an acceptable alternative for only 9% of Seiffge-Krenke's (1995) non-clinical population, and Frydenberg and Lewis (1993) found that it was used, on average, 'very little' in a sample of 673 Australian adolescents. As Seiffge-Krenke (1993) states "we cannot solely learn about adolescents by generalising from the experiences of a highly selected group of teenagers who come for professional help" (p. 286).

Most of the research in this field since the mid-1960's has used exclusively clinical samples (Lewinsohn, Gotlib and Seeley, 1995; Wilson, Stelzer, Bergman, Kral, Inayatullah and Elliot, 1995). Although there has been a recognition of the importance of studying the relationship between stress, coping and psychological well-being in normative samples in other countries, in particular Germany (Seiffge-Krenke, 1995), the United States (Compas et al, 1993; Rice et al, 1993; Wampler, Halverson and Deal, 1996) and Australia (Frydenberg and Lewis, 1993), it remains a research deficit in the United Kingdom.

It is difficult to make sense of an investigation with an exclusively clinical population until normative data is obtained. Also, in the case of adolescents, it is likely that, considering both the reported levels of depression in this population and their clinical under-representation, an important proportion of a non-clinical population will be individuals with clinical levels of psychological distress. It is therefore argued that the most fruitful and clinically relevant investigation of this subject paradoxically necessitates a non-clinical sample. The next area to be considered are the events that act as challenges and stressors to a population of non-clinical adolescents.

Challenging Life Events

As stated above, difficulties arise for adolescents when the challenges they face become overwhelming. Another way of construing these overwhelming challenges is as 'stress'. 'Stress', as is true of 'adolescence', is a term that is commonly used yet has many different connotations. Many researchers have criticised the field of research into stress due to the failure to define its key term adequately (Compas and Phares, 1986). The initial focus was on stress as manifested in discrete environmental events, such as loss of a loved one, parental divorce or sudden change in financial status. These discrete events were seen to represent quantifiable changes in the environment, and usually this change was perceived as negative (Holmes and Rahe, 1967). However, the transactional model of stress and coping (for full summary see Lazarus and Folkman, 1991) has recently become widely accepted and empirically upheld (Seiffge-Krenke, 1995). In this model stress is defined as a "particular relationship between the person and the environment that is appraised by a person as taxing

or exceeding his or her resources and endangering his or her well-being" (Lazarus and Folkman, 1991, p. 19). In social constructionist terms, Lazarus' notion of environment should be expanded to include social, historical and cultural influences (Henwood, 1996).

As described above there are numerous tasks during the adolescent period that could be experienced as taxing. These tasks encompass normative challenges, major life events and daily hassles (Rice et al, 1993). One of the key steps in studying adolescent coping is considering which stressors are most relevant to the task of understanding the different strategies used to overcome them and the effects of these strategies on subsequent psychological well-being.

Until the mid 1980's the majority of research into adolescent coping concentrated on the effects of critical life events (for summary see Seiffge-Krenke, 1995). Involving, almost exclusively, clinical populations, attention was paid to social, financial and psychological resources available for coping with such events as parental divorce (Frude, 1993), serious illness, and unplanned pregnancy (Coletta, Hadler and Gregg, 1981). Certainly the importance of such research is not under question, yet even the most common of these life events, parental divorce, is estimated to occur for only 15/1000 children and adolescents per year (Warshak and Santrok, 1983). With this in mind, it is clear that major/critical/traumatic life events alone cannot account for the relatively high incidence of psychological distress amongst this population.

It is therefore not surprising to find that the focus of research shifted in the mid 1980's from events that could be considered extremely stressful to everyday stress situations, usually termed 'daily hassles' (e.g. Stark, Spirito, Williams and Guervremont,

1989). It had been discovered that although major crises were important it was minor everyday conflicts, especially between adolescents and their parents, that tended to be described by adolescents themselves as most significant and which preoccupied them the most (Montemayor, 1986; Compas, 1987; Wagner, Compas and Howell, 1988). This fact illustrates how a shift from predetermined avenues of inquiry to the more flexible consultation of the individuals under investigation, a research method advocated by social constructionists (Harre & Secord, 1972), promoted understanding of the issue most relevant to those individuals.

This study therefore will investigate stress in terms of life events that regularly effect the lives of adolescents and therefore effect their psychological well-being. Obviously, this could include traumatic events in addition to minor stressors and daily hassles. The next step is to consider responses to these events and what is meant by the term 'coping'.

Coping

As stated above there is general consensus that the transitional nature of adolescence results in both the likelihood of increased stress and increased vulnerability to that stress. In essence, stress is an inevitable aspect of life and adolescence is no exception. There has therefore arisen a recognition that it is responses to this stress, rather than the stressor itself, that has a greater effect on levels of psychological distress and research emphasis has begun to shift from stress to the concept of coping (Compas et al, 1993).

As with stress, much of the key research around the area of coping was initially done by Lazarus (1966). In 1974 Lazarus, Averill and Opton defined coping as "problem solving

efforts made by an individual when the demands he (sic) faces are highly relevant to his welfare, and where these demands tax his adaptive resources" (p. 15).

The key components of the Lazarus model of coping are: the individual's action, the specific context and how an individual's action changes as the stressful encounter unfolds. He also suggests that cognitive reappraisals are fundamental mediators of the coping process. Appraisal is defined as "a continuously changing set of judgments about the flow of events for the persons well being" (Lazarus and Launier, 1978, p. 302). Another important part of this concept is locus of control. Where adolescents perceive the possibility for control then they are more likely to utilise problem-focused or functional coping strategies (Benson and Deeter, 1992). Where the locus of control is external, or perceived as such, emotion-focused strategies are believed to be more prominent and the likelihood of withdrawal, (cognitively related to Seligman's (1974) theory of learned helplessness), greater.

All theorists recognize the importance of both internal and external factors in the coping process, although the difference is often on emphasis. For example, Lazarus, in his process-oriented model of coping, described above, emphasised the role of situational specificity, and argued that both internal resources and those particular to the environment determine the way coping is realised in a particular situation. Hann (1974, 1977), on the other hand, emphasised far more internal, or trait, components, believing coping to be a far more stable and less dynamic entity than Lazarus.

Regardless of whether they are viewed as trait-like entities or more situation-specific responses, researchers have attempted to break down the coping process into discrete

strategies. For most researchers this has also involved classification of certain strategies as more effective than others. Lazarus and Folkman (1991) argue that *problem-focused coping* is distinct from *emotion-focused coping* and found that people with low levels of depressive symptoms are more likely to use problem-focused coping, whereas, in contrast, higher levels of depressive symptoms are related to emotion-focused coping.

Recent research has continued to differentiate between different coping strategies. Seiffge-Krenke (1995) dismantled the coping process into *internal coping*, *active coping* and *withdrawal*. Similarly, Frydenberg and Lewis (1993), found three main factors from an original 18 scales; *problem-focused coping*, *relating to others* and *non-productive coping*.

Seiffge-Krenke (1995) also differentiates between 'functional' (*active* and *internal coping*) coping strategies and 'dysfunctional' (*withdrawal*). In this model, functional coping is associated closely with problem-solving initiatives in which the problem is defined, alternative solutions generated and actions performed. As with Lazarus and Folkman (1991), Seiffge-Krenke found that 'functional' coping strategies are related to lower levels of depression than 'dysfunctional' strategies. The terms functional and dysfunctional are extremely value-laden, yet despite this Seiffge-Krenke (1995) argues that neither is inherently good or bad. Frydenberg and Lewis (1993) have a similar opinion stating that "since all non-productive strategies are not intrinsically dysfunctional, coping can be construed as inherently adaptive, it cannot be labeled 'good' or 'bad' since the context has to be considered". (p. 254).

Therefore, current research into adolescent coping suggests that it is possible to differentiate between coping strategies. *Problem-focused*, *active methods* have been shown

to combat depression more effectively than *emotion focused, non-productive* methods. However, several researchers also suggest that there is a need to be very careful about describing any response to an event as inherently dysfunctional. Therefore, although most researchers investigate the effective/ineffective dichotomy, in terms of depression as an outcome measure, there is a belief that this does not fully explain the range of adolescent coping. There still remains, however, a distinct lack of research that attempts to explain why this dichotomy is only of limited use. The issue of gender differences in both coping responses and psychological distress illustrates some of the complexities of, and influences on, the effective/ineffective dichotomy.

There are well documented higher rates of depressive symptoms, and differences in coping responses in adolescent females compared to males (Holbrook, 1978; Nolen-Hoeksema, 1987; Schwartz and McCombs-Thomas, 1995). Nolen-Hoeksema (1991) describes female and male response sets that emerge due to cultural influences and socialisation processes that contribute to gender stereotypes, and this has been supported by research findings (Compas et al, 1993). According to this model, females are more susceptible to depression due to their response to depressive moods. When faced with a depressive mood females are considered more likely to attend to their depressive emotions and symptoms as well as the cause of the mood and its implications. Social constructionism expands on this further suggesting that “the discourses of motherhood, femininity, family life and so on actively encourage women to engage in practices which are not necessarily in their own psychological, social and economic best interests.” (Burr, 1995, p. 151) Males on

the other hand are believed to engage in more distracting tactics, purposefully turning their attention away from the depressive mood.

Social constructionism argues that these differences illustrate the power of cultural and social discourse on gender rather than any inherent differences between males and females. Females show higher levels of depression because of a particular response set and this response set is determined, in part, by what are culturally considered to be appropriate female responses (Burr, 1995). It could also be argued that this response set becomes labeled as 'ineffective' due to the greater value placed on male response sets in our society.

To return to the main aim of this research, i.e. to investigate the coping process in adolescents, it is clear that any search for 'effective' coping strategies has to proceed with an awareness of the context in which effectiveness is defined. Depression, stress and coping are all constructs that have well developed roots in traditional psychology and as such need to be investigated. It is also argued, however, that these constructs do not represent factual entities and any research needs to proceed with an opportunity to investigate their validity. The above argument has implications for the methodology used to undertake research into this area.

Methodological Considerations

One of the most useful ways to test the relationship between stress, coping and distress, and the validity of these constructs, is to develop a model of that relationship. For a model to make sense classification and differentiation must take place. Informed by both traditional psychological perspectives (Seiffge-Krenke, 1995; Lazarus and Folkman, 1991) and social

constructionism (Burr, 1995) a model was produced that incorporates a host of interrelated research questions. In this model (see Figure 1, page 16) coping is represented as a variable that moderates the relationship between life events and depression. Coping is conceptualised as a response to the appraisal of resources available following an initial appraisal of the event in question as either positive or negative, or in Lazarus's terms, threat or challenge. This appraisal is argued to be as important, if not more so, as the life event itself and is not considered free from social, historical and cultural influences. The coping response is then expected to result in a certain level of depression with 'ineffective' coping relating to high levels of depression and 'effective' coping relating to lower levels.

As stated, the central question is whether there are certain coping responses that can be considered universally effective/ineffective, keeping in mind that there are different ways in which to conceptualise effectiveness, with level of depression being only one outcome measure.

The model also suggests that level of depression will have an effect on both the appraisal of the event and of the resources available to cope with it, thus effecting coping response. This has been empirically supported by numerous researchers who describe the cognitive bias in people who are depressed (Kanfer and Goldstein, 1991). This bias includes selective abstraction, overgeneralisation and dichotomous thinking, which can all lead to a reduced activity level (Beck, Rush, Shaw and Emery, 1979).

Another key question is the relative importance of external and internal resources in the eventual coping strategies used by adolescents. A lot of research has shown the importance of external factors such as family environment (Dean and Lin, 1977; Cauce, Felner, and Primavera, 1982; Hetherington and Blechman, 1996), social and peer networks

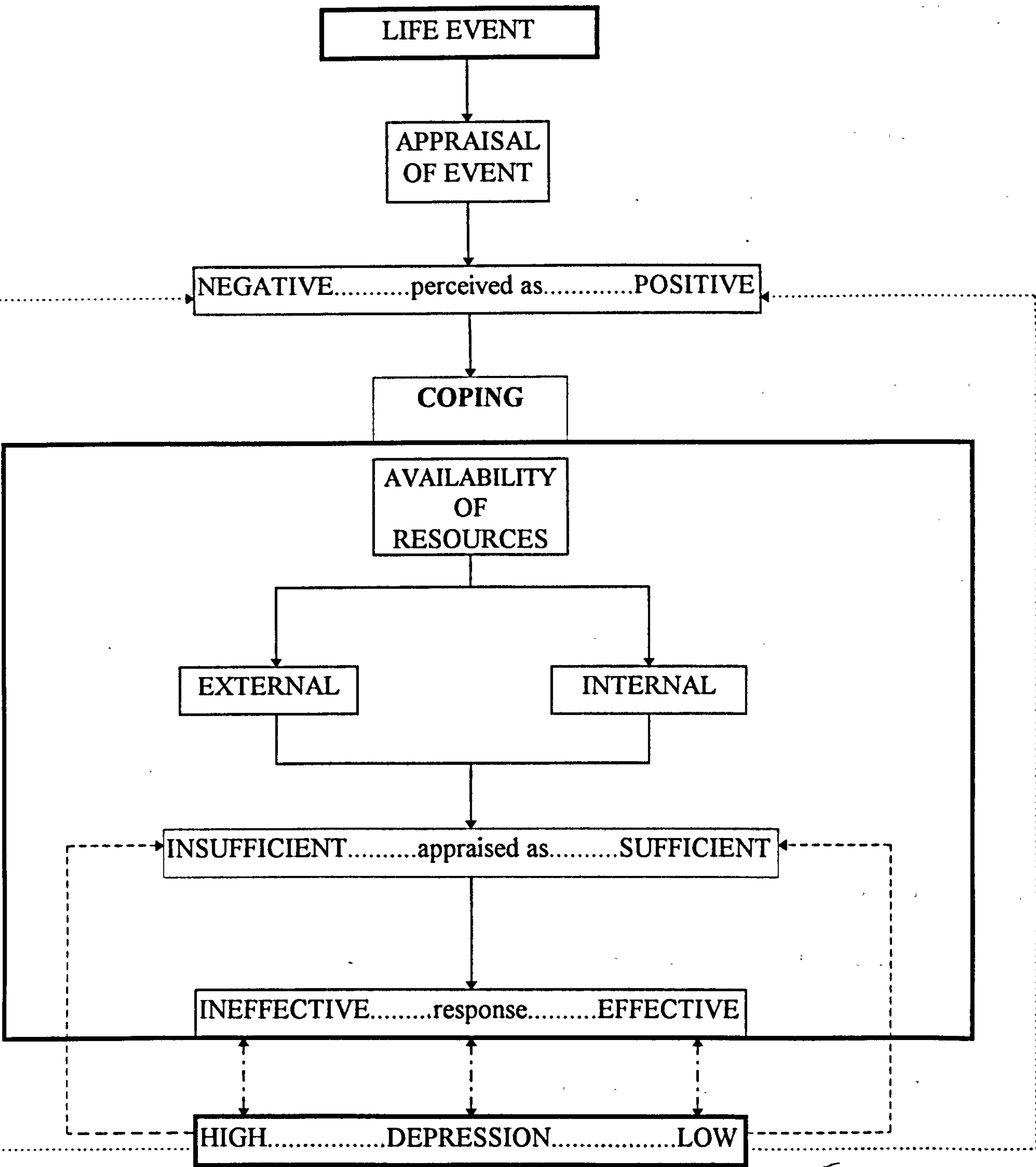


Figure 1. Model of the relationship Between Life Events, Coping Strategies and Depression in Adolescents

(Bandit and Berry, 1986; Pattern and McCubbin, 1987; Hartup, 1992; Schulman, 1993; Tourville and Bowen, 1994; Robinson, 1995), and socio-economic status (Hetherington, Cox and Cox, 1977) on the psychological well-being of adolescents. The model suggests that the availability, or perception of availability, of external resources is an important factor in coping strategy used. Yet the coping strategy or style itself could be considered an internal resource. Thus it is possible to differentiate between the availability of an extensive peer network and the strategy of turning to that network in times of distress. In clinical terms the resolution of many of the difficulties which are the external factors affecting an adolescents well-being are beyond the realm of psychological interventions. Certainly family therapy and systemic approaches have been shown to alter styles of interaction within the family context (Goldenberg and Goldenberg, 1991), yet many realities of the adolescents' world, such as financial status, cannot be altered by psychological interventions. Therefore, this study focuses on the internal, or psychological, resources available to the adolescent which includes both their methods of appraisal and subsequent coping response.

Clinically, the limited number of intervention initiatives have tended to focus on psycho-educational training workshops aimed at teaching adaptive emotional, cognitive, and behavioural responses to challenge, in other words effective coping strategies (e.g. Ralph and Nicholson, 1995). The reported effectiveness of such programs has been limited, and beset by methodological difficulties (Seiffge-Krenke, 1995). This limited effectiveness is most likely linked to the reluctance of many researchers to consider particular coping responses as inherently bad. There is however, another route suggested by the model to change levels of depression and this is through a shift in appraisal of both resources

available and effectiveness of response. This route has perhaps most often been travelled by narrative therapists, who have embraced ideas from social constructionism (Sarbin, 1986).

One of the key concepts of Narrative Therapy is that human beings are interpreting beings, that, as White (1995) suggests “we are active in the interpretation of our experiences as we live our lives”. He goes on to suggest that “the meanings derived in this process of interpretation are not neutral in their effects on our lives, but have real effects on what we do, on the steps that we take in our life”. The model, presented on page 16, suggests that appraisal of both the event and the resources available to deal with the event are key factors in the path between life events and depression. Feedback loops on the model also indicate that it is not just appraisal but reappraisal of the event and resources available which are of importance. Appraisal could be considered synonymous with interpretation.

Narrative theory also suggests that our ‘self-narratives’, and the way events are interpreted are not free from cultural and societal influences (Gergen and Gergen, 1984). These influences have been shown to have a significant effect on psychological well-being (Nolen-Hoeksema, 1991). Adolescents are faced with ‘problem saturated’ stories about their developmental stage and as such may find themselves interpreting much of their experience in this way (Mancuso, 1986). If the participants’ internal resources can be explored and emphasised it is possible that an alternative story can be described, in which the adolescents’ control over their own difficulties is stronger. This approach has been empirically supported (Besa, 1994).

Therefore, the model combines thinking from both traditional psychology and social constructionism. Traditional psychologists have endeavored to differentiate between coping

strategies in order to discover those which are most effective in combating distress, while social constructionists have emphasised the importance of interpretation and appraisal in promoting change, not necessarily in the coping strategy itself, but in the individuals' assessment of their coping responses. This research attempts to explore the coping process from both of these perspectives. This dual perspective is necessary because the research has shown that the effective/ineffective dichotomy, although important, does not adequately explain the process of adolescent coping. Yet, there has been a distinct lack of research into why this dichotomy is limited. It is clear, therefore, that a broad investigation needs to be undertaken and this can be achieved by combining both theoretical perspectives and methodology.

Thus, returning to the question of how to study the relationship between life events, coping and depression it is clear that a multi-method approach is preferable if the coping process is to be explored in detail. It can be argued that there are powerful and good reasons for employing more than one kind of measure, especially when testing the validity of some of the constructs under question.

Standardised questionnaires exist to measure the impact of life events, depression and coping strategies. These have the advantage of allowing information to be collected on large samples and for the interrelationships of these variables, individual and gender differences to be examined. Information obtained through these measures is quantifiable and thus lends itself well to the scientific quest of hypothesis testing. Also, standardised measures help the researcher to draw conclusions about the generality of a finding. Unfortunately, it is also true that it may be difficult for some participants to organise their

thoughts and experiences into the categories available to them and, as such, much of the richness of experience can be lost. One of the main disadvantages of psychometric measures is that they predetermine the context and details of what can be communicated (Richardson, 1996).

Interviews, although far more time consuming and less readily quantifiable than psychometric measures, have many beneficial elements. Questions can be clarified, responses obtained in the required depth and detail and individual response styles catered for. As Seiffge-Krenke (1995) states “this makes the interview an almost perfect medium for deep analysis of the coping process” (p. 37). Although interviews are not without an agenda they are more flexible in the responses that they seek and therefore provide the researcher with a broader, and less predetermined, set of results.

Perhaps the most important advantage of a multi-method approach is that different enquiry positions are associated with different kinds of data and a thorough analysis of the relationship between life events, coping and depression can surely benefit from this. It is also important to remember that “it is psychologists who create hierarchies by giving legitimacy to one kind of knowledge over others” (Stevenson and Cooper, 1997, p. 160).

The Present Study

Adolescence has been demonstrated as a time when many transitions occur which leaves the adolescent vulnerable to stress and psychological distress. Alleviating this distress is an important clinical consideration. The way individuals respond to stress, their method of coping, has been identified as an important variable in the route between stress and distress.

Traditional psychology has differentiated between coping responses, finding that problem-focused strategies are more effective in maintaining low levels of depression than emotion-focused strategies. Social constructionists have demonstrated that the way a coping response is appraised may be as important as the response itself. The model, given on page 16, is consistent with both the present traditional psychological and social constructionist perspectives. The focus of this study will, therefore, be to investigate and explore the detail of this model, with particular emphasis on the coping process and the concept of the effective/ineffective coping dichotomy. In order to be consistent with both perspectives a multi-method approach will be undertaken. Psychometric measures will be used to determine levels of depression, life change experienced and coping strategies used in an adolescent population. Semi-structured interviews will be conducted to explore the coping process in more detail, with emphasis on the role of appraisal.

Aims

The aim of the research is to investigate the coping process in relation to life change and psychological distress and determine whether it is possible to identify certain coping strategies as universally effective. This will involve:

- 1) Determining whether there are coping strategies, as classified by Frydenberg and Lewis (1993), that are more effective than others in terms of their effect on levels of depression.

2) Identifying the coping strategies appraised as effective/ineffective by the adolescents themselves (regardless of level of depression).

3) Considering the role of appraisal and re-appraisal in the coping process.

4) Investigating the role of coping strategy as a moderating variable between life events and depression.

In order to achieve the above the study will include following subsidiary aims:

a) To investigate the role of specific life events, whether there are life events that are universally experienced as positive/negative or elicit particular coping responses.

b) To present normative data for each of the psychometric measures and compare this with previous studies.

c) To investigate the psychometric properties of each of the measures.

d) To test for gender differences in life events experienced, coping strategies used and depression levels reported.

e) To investigate the statistical relationships between the three main variables; life events, depression and coping strategies.

Qualitative analysis (aims 2 and 3) does not lend itself to hypothesis testing (Potter, 1996). However, the following hypothesis, developed from the model, will provide the structure and direction for the quantitative analysis of the aforementioned aims.

Hypothesis 1 (aim 1): Coping strategies will be related to depression: *problem solving* coping styles will result in lower levels of depression than *non-productive* coping styles.

Hypothesis 2 (aim 4): Coping strategies will act as a moderating variable between life change and depression.

Method

Design

The design of the study was cross-sectional involving a single non-clinical group and a multi-method approach. Step one consisted of a correlational questionnaire design involving all subjects. Step two comprised a semi-structured interview administered to a sample of 20 from the population under investigation.

Participants

Participants comprised 159 young people, aged between 13 and 15 years, 89 males and 70 females, who all attend a local comprehensive school. Seven mixed ability classes, five from Year 9, with pupils aged between 13 and 14, and two from Year 10, aged 14-15 years, were randomly selected by staff at the school. All pupils agreed to participate in the questionnaire

stage of the study and 72% agreed to be interviewed. Out of this 72%, 20 were eventually selected and interviewed.

MEASURES

Birleson Depression Inventory (Birleson, 1981) (see appendix 1)

This is a self report measure containing 18 items relating to physical, emotional and psychological symptoms of depression in childhood. The 18 items are rated by the respondent on a three point Likert scale (1- most, 2 - sometimes, 3 - never). One total depression score is provided. The scale has been shown to have high internal consistency, factorial validity and satisfactory stability (Birleson, 1982) and has been developed for use with children over the age of seven years.

Life Events Checklist (see appendix 2)

The Life Events Checklist (LEC) (Johnson and McCutcheon, 1980) is a self report measure of the life stress experienced by an individual over the previous 12 months. It contains 46 items with participants indicating whether the impact of the event has been positive or negative (appraisal) and the weight of that impact on a four point scale (no effect, some effect, moderate effect and great effect). The scale provides two positive and two negative total stress scores. Positive and negative life-change scores are obtained by summing the impact ratings of events judged as desirable and undesirable (impact rating procedure) and also by simply summing the numbers of positive and negative events, giving each a rating of one (sum rating procedure).

A life events approach to the measurement of stress was used because such a methodology accesses a wide range of potential stressors and provides a good measure of general environmental stress experienced by the individual (Johnson and McCutcheon, 1980).

Adolescent Coping Scale (short form) (see appendix 3)

The Adolescent Coping Scale (ACS) (Frydenberg and Lewis, 1993) is both a research instrument and a clinical tool which enables young people to examine their own coping behaviour. The instrument has been developed for use with young people in the age group 12 to 18 years. To date the ACS has proven to be of value in a number of studies which have focused on individual and group responses of young people in a variety of contexts (Frydenberg and Lewis, 1993).

The ACS is a self-report inventory comprising 19 items, (18 structured and 1 open-ended) which assess 18 empirically and conceptually distinct coping strategies:

(1) Seek Social Support, (2) Worry, (3) Not Coping, (4) Focus on Solving the Problem, (5) Invest in Close Friends, (6) Tension Reduction, (7) Work Hard and Achieve, (8) Seek to Belong, (9) Social Action, (10) Ignore the Problem, (11) Seek Spiritual Support, (12) Physical Recreation, (13) Self Blame, (14) Seek Professional Help, (15) Wishful Thinking, (16) Keep to Self, (17) Seek Relaxing Diversions, (18) Focus on Positive.

The 18 structured items are rated by the respondent using a five-point Likert scale (1- doesn't apply at all; 2 - used very little; 3 - used sometimes; 4 - used often; 5 - used a great deal). The short form was selected for two reasons. Time constraints would have

made completion of the 80 item long form difficult for many pupils. Also, the 18 items of the short form provide the basis for three scales comprising items loading on the strategies described above. Three scales have been created. The first, *Problem-focused*, comprises Focus on Solving the Problem, Seek Relaxing Diversions, Physical Recreation, Seek to Belong, Work Hard and Achieve, and Focus on Positives. The second scale, *Reference to Others*, consists of Seek Social Support, Seek Spiritual Support, Seek Professional Help and Social Action. The third *Non-productive Coping* includes Worry, Invest in Close Friends, Seek to Belong, Wishful Thinking, Not Coping, Ignore the Problem, Tension Reduction, Keep to Self and Self-blame. The reported internal reliabilities of the three scales of *Problem-focused*, *Reference to Others* and *Non-productive Coping* are 0.61, 0.50 and 0.66 respectively (Frydenberg and Lewis, 1993).

Interview (see appendix 4)

A semi-structured interview was developed by combining the Interview Guide for Coping Process developed by Seiffge-Krenke (1995) and narrative questioning (White, 1995).

The interview invited each participant to self-select an event that had occurred over the past year which they considered to have had a significant effect on their life. This event was then discussed following the semi-structured interview schedule. The deep structure of the interview aims to investigate the following areas of adolescent coping :

1) their framing and definition of the event, (2) primary and secondary appraisal of the event, (3) coping responses, (4) intended effect, (5) reappraisal of the event.

The deep structure of the interview was supplemented by providing alternative formulations of questions that the interviewer could employ at her discretion in order to request additional information pertaining to the event and to establish the proper sequence of events as well as the relationships between them. Also included were questions originating from Narrative Therapy Techniques (White, 1995). The model, presented on page 16, highlights the importance of appraisal, interpretation and reappraisal in the coping process.

As the emphasis of this research is on the internal influences on coping responses, the interviews aim to invite the participant to reappraise the event taking into account their own influence on events, and what they learned from and admired about what they did in response to a significant event in their life. This is done with the belief, taken from narrative theory, that the way a story about an event is told or interpreted can significantly effect what is done in the future and obviously the way a story is told is greatly determined by the questions we asked about it. One of the most 'dominant stories' of adolescence is that it is 'problem-saturated' and this will necessarily influence their interpretation of events and the amount of control available to change any given situation (Mancuso, 1986). Although exploring significant events in the adolescents' lives, the interview aims to emphasise successes as well as problems in the coping process.

Evaluation (see appendix 5)

All participants who were interviewed were asked to complete an anonymous evaluation form comprising seven questions aimed to assess the effect of the interview on the

interviewee. Participants were asked to consider the positive and/or negative effects of the interview and also whether being interviewed has effected any change in their view of the event discussed and/or themselves. The evaluation was included both as an opportunity to gain valuable feedback on the research process and to ascertain whether the interview had the potential to be developed into a clinically useful tool.

Ethical Approval

Approval for the research was granted by the headmaster and the relevant ethical committee.

Procedure

The headmaster of the school was approached about the research and agreed in principle. Meetings were then held with the head teacher of each of the two years within the age-range to be studied (Years 9 and 10) to discuss the practicalities of the research.

Participants were initially informed about the research in school assembly. A brief outline of the role of a clinical psychologist and the purpose of the study was given by the researcher. An information letter was sent home to parents (see appendices 6 and 7) and consent for participation given in all cases.

The first stage of the research was completion of the psychometric measures. Participants were approached to do this in either their personal and social education or career classes in order not to interfere with National Curriculum requirements in other

classes. Each class contained an average of 25 pupils, with a range of 20 - 30. As some classes occurred concurrently the researcher was assisted by another Clinical Psychologist in Training in order for a psychologist to be present throughout the process for each group of pupils.

Initially the purpose and nature of the study was repeated and the participants were then given an opportunity to ask questions. Next, participants were provided with research consent forms (see appendix 8). All agreed to complete the questionnaires, with 72% also agreeing to be interviewed. Questionnaires were presented in previously prepared randomly ordered packs. Written instructions for each questionnaire were provided in the pack and in addition all instructions were repeated verbally and a further opportunity to ask questions was given. Participants were asked to indicate their gender and age, in years, on the questionnaire pack. No other demographic data was requested. Participants were also asked to generate a code, comprising one letter and two numbers in order that those chosen for interviewing could be identified afterwards.

After all initial questions had been answered participants were asked to begin the questionnaires. The researcher, or assistant, was available throughout to answer any further inquiries and the class teacher remained in the room to monitor proceedings. Participants had 35 minutes to complete the questionnaire pack and all did so well within the time. Questionnaire packs were then collected and the pupils thanked for their participation.

20 participants were then selected for interview from a possible 121 who had agreed to take part in this stage of the research. In order that the interviewed participants were a representative sample of the whole group, 10 females and 10 males were selected, average

age 13.6 years. In addition depression scores, as the dependent variable, were calculated in advance with five participants from each gender having a depression score above the mean (≥ 10) and five from each gender with a depression score below the mean (≤ 9).

Interviewees were contacted through their year head teacher and a meeting with the researcher was arranged. During the meeting participants were given the opportunity to pull out of the study, which none did, and any questions about the nature of the interviews were answered. Participants were interviewed in a private classroom. Before the interview commenced the purpose of the evaluation forms was explained and handed to each interviewee in a stamped addressed envelope. Permission was sought for the interview to be taped and granted by each participant. Interviews lasted between 15 and 45 minutes, and once completed interviewees were asked if they had any further comments and/or questions. They were then thanked for their participation.

Results

The results of the subsidiary aims of the research will be presented first, followed by the main hypotheses and then the qualitative data.

Subsidiary Aims

Depression

The mean depression score was 9.73 (SD = 5.24) (see appendix 9 for frequency distribution). Table 1 sets the results from the present study against the three groups used by Birleson to originally develop the scale.

Table 1. Comparison of means of self-report depression inventory with Birleson's (1981) original study.

		<u>Birleson (1981)</u>			
		<u>Present Study</u>	<i>Clinically Depressed</i>	<i>Clinical Control</i>	<i>School Control</i>
		(N = 159)	(N = 17)	(N = 17)	(N = 19)
Age	Mean	13 ys 9 mths	10 ys 9 mths	10 ys 4 mths	12 ys 1 mth
	SD	9 mths	21.8 mths	20.6 mths	3.4 mths
Depression					
Score:					
	Mean	9.73	17.65	8.18	4.32
	SD	5.24	6.44	4.27	3.32

Comparing the results of the present study with the school control group it can be seen that the mean depression score is considerably higher for the present study.

Gender Differences. As significant gender differences in levels of depression have been found in other studies a t-test was performed but no difference between the means was found ($t(158) = 0.36, ns$).

Internal Reliability. As this measure has not previously been used on a sample with this age range internal reliability was assessed using Cronbach's coefficient alpha. The measure was found to have good internal reliability ($\alpha = 0.82$).

Life Events Checklist

Positive and negative life-change scores were obtained by summing the impact ratings of events judged as desirable and undesirable (impact rating procedure) and also by simply summing the numbers of positive and negative events, giving each event a rating of one (Sum rating procedure). Table 2 sets out the results from the present study against two other normative studies carried out by the developer of the measure.

Table 2. Means of the life events checklist and means of two comparison normative studies

		Present Study	Brand and Johnson (1982)	Johnson and McCutcheon (1980)
		(N = 159)	(N = 50)	(N = 97)
Age in years	Mean	13.79	13.00	not supplied (range 13-17 years)
	SD	0.75	not supplied	not supplied
Gender	Female	70	27	51
	Male	89	23	46
Negative Sum	Mean	4.75	3.8	not supplied
	SD	4.17	2.7	not supplied
Negative Impact	Mean	8.47	13.7	5.46
	SD	9.10	9.6	5.51
Positive Sum	Mean	3.85	3.3	not supplied
	SD	2.99	2.3	not supplied
Positive Impact	Mean	6.81	12	6.88
	SD	6.82	8.1	5.74

The results show that negative life events are, on average, experienced slightly more than positive life events. The two comparison studies present quite different results therefore it is difficult to determine whether this particular group represents a normative sample in terms of life events experienced.

Gender Differences. Gender differences were investigated for all four means using t-tests but none were found (see appendix 10).

Description of Events Experienced. In order to decide which life events could be considered unusual and which could be considered more likely to occur in the life of this sample the percentage of participants who experienced each life event was calculated (see appendix 11). All the events listed were experienced by at least one participant. Also, in order to discover whether, as suspected, there would be few events universally experienced as either bad or good, the rating of each event, by each participant, either positive or negative or both, was noted. Those where there was a mixture of positive, negative and mixed ratings were given a 'mixed' label while only those where all participants were in complete agreement were given either a positive or negative score. The ten most frequently occurring events are illustrated in Table 3. Table 3 shows that school-oriented events are most frequently experienced by this group and the most common major life event (Seiffge-Krenke, 1995) is death of a family member.

Table 3. Summary of life events experienced by participants

Life Event	% experiencing it	Rating
Getting a good report	55.3	mixed
Recognition for good grades	39.0	mixed
Trouble with sibling	35.2	mixed
Making sports team	34.6	mixed
New boy/girlfriend	33.3	mixed
Joining new club	33.3	mixed
Trouble with teacher	33.3	mixed
Death of family member	32.7	mixed
Trouble with classmates	31.4	mixed
Increased arguments with parents	29.6	mixed

Adolescent Coping Scale

Scores on the adolescent coping scale were collated and means for each of the 18 items were calculated (see appendix 12). These results showed that amongst this sample the most frequently used coping strategies were *Focus on Solving the Problem*, *Physical Recreation* and *Work Hard and Achieve*, while the least used were *Seek Professional Help*, *Social Action* and *Not Coping*.

Internal Reliability. These 18 items were then reduced to the three factor structures outlined by Frydenberg and Lewis (1993): *Solving the Problem*, *Reference to Others* and *Non-productive Coping*. The internal reliability of each scale was calculated using Cronbach's

(1990) coefficient alpha and Table 4 sets these results against those from Frydenberg and Lewis's original study.

Although the internal reliabilities of the *Solving the Problem* and *Non-Productive Coping* scales are very similar to those quoted by Frydenberg and Lewis and indicate moderate reliability of these scales, especially considering the relatively small number of items on each, the *Reference to Others* scale proved to have poor internal reliability and differed from that quoted in the original study. To assess whether any particular item affected the total internal reliability negatively the correlation alpha was computed with each item deleted in turn. The results are shown in Table 5.

Table 4. Reliabilities of Adolescent Coping Scale and comparison with original study (Frydenberg and Lewis, 1993)

	<u>No of items</u>	Present Study (n = 159)		Frydenberg and Lewis (1993) (n = 673)	
		<u>Mean (SD)</u>	<u>Alpha</u>	<u>Mean (SD)</u>	<u>Alpha</u>
<u>Scale</u>					
Solving the Problem	6	20.27 (4.26)	0.66	21.1 (3.8)	0.61
Non-productive Coping	9	24.58 (5.74)	0.63	24.6 (5.9)	0.66
Reference to Others	4	8.65 (4.26)	0.33*	8.4 (2.9)	0.50

Note * = excluded from subsequent analysis

Table 5. Item-total statistics of Reference to Others scale in the Adolescent Coping Scale

<u>Item</u>	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Alpha if Item Deleted
Talk to other people about my concern to help me sort it out	5.94	6.14	.02	.44
Join with other people who have the same concern	6.64	5.53	.19	.26
Pray for help and guidance so that everything will be all right	6.45	4.78	.15	.30
Ask a professional person for help	7.02	4.78	.38	.04

Table 5 illustrates that the removal of item 1 on the adolescent coping scale (Talk to others about my concern to help me sort it out) would substantially increase the internal reliability of the scale, possibly because this item does not produce a wide range of responses from the participants in this sample. However, an alpha coefficient of 0.44 still indicates poor internal reliability and this scale was therefore rejected from any further analysis.

The results therefore produced two coping scales, 'solving the problem' and 'non-productive coping'. These scales were then adjusted (Solving the problem x 3, Non-productive coping x 2), as outlined by Frydenberg Lewis to provide a profile of how the different coping strategies were used by the sample. This is illustrated in Table 6.

Table 6. Profile of coping styles

<u>Coping Strategy</u>	<u>How Often Used</u>				
	Not	Little	Sometimes	Frequently	Great Deal
Non-Productive Coping	15%	53.6%	29.3%	2.1%	0%
Solving The Problem	0.7%	9.5%	46.9%	38.8%	4.1%

A t-test ($t(136) = 8.28, p < 0.01$) for paired samples was performed and a highly significant difference in the amount that the two strategies are used was found. Solving the Problem was utilised far more amongst this sample than Non-productive Coping.

Gender Differences. T-tests were performed comparing the use of Non-productive Coping and Solving the Problem strategies by males and females. No significant differences were found (see appendix 10).

Question 19 on the ACS is an open ended question asking respondents to identify any coping strategies that they frequently utilise but which are not mentioned in the scale itself. 76 out of the 159 participants described an extra coping strategy (see appendix 13). These strategies were then grouped in themes, illustrated in Table 7.

Table 7. Themes of ‘Other Methods’ of coping

<u>Method of Coping</u>	<u>Frequency</u>	<u>Percentage</u>
Talking about the problem	19	25%
General Activities	12	15.8%
Coping Alone	11	14.5%
Negative moods and actions	11	14.5%
Doing Hobbies	9	11.8%
Not Thinking about Problem	6	7.9%
Thinking about the problem	5	6.6%
Social Activities	3	3.9%

Main Hypotheses

Correlational Analyses

Scatter plots were generated and Pearson’s correlation coefficients calculated relating the seven major variables measured in the sample: depression, negative life change (sum and impact), positive life change (sum and impact) and the two usable factors of the ACS; Solving the Problem and Non-Productive Coping. The Pearson Correlation Coefficients are presented in Table 8.

Hypothesis 1. Hypothesis 1 predicted that there would be a relationship between coping style and psychological well-being, characterised by depression. Table 8 shows a moderately strong negative correlation between Solving the Problem and depression and a more moderate positive correlation between Non-Productive Coping and depression. More use of non-productive coping is associated with greater depression, while utilising solving the problem techniques is associated with lower levels of depression. This suggests that

there is a relationship between coping strategies, as defined by the ACS, and depression. Hypothesis 1 is therefore upheld.

Table 8. Pearson's correlation coefficients (r) between coping strategies, life events and depression

	Coping Strategy		<u>Depression</u>
	<u>Solving the Problem</u>	<u>Non-productive Coping</u>	
Depression	-.52**	.36**	
<u>Life Events:</u>			
Negative (sum)	-.14	.31**	.33**
Negative (impact)	-.15	.31**	.32**
Positive (sum)	.21**	.11	-.12
Positive (impact)	.17	.11	-.08

**p < 0.01

The correlation analyses also revealed significant relationships between life events and depression, and life events and coping strategies. Negative life change (sum and impact) is associated with greater levels of depression while the relationship between positive life events and depression, although showing a trend for a negative relationship, is not significant. Negative life change (sum and impact) are also significantly related to non-productive coping, in comparison with positive life change which has a significant relationship with solving the problem.

Regression Analyses

Regression analyses were used in order to determine whether coping style could be considered a moderating variable between perception of life events and levels of depression.

A series of hierarchical multiple regressions analyses was conducted with depression as the criteria, and the four measures of life change (positive/negative, sum and impact) and two coping styles (non-productive coping and solving the problem) as the predictors. At Step 1 the life change and coping style variables were introduced and at Step 2 the interactive term life change x coping style was introduced. Results, illustrated in Table 9, did not demonstrate a significant interactional effect between coping style and life events experienced. Hypothesis 2, which suggested that coping strategy should act as a moderating variable between life change and depression is therefore not supported.

Table 9: Regression of depression onto life change, coping and an interactive life change/coping term.

<u>Analysis 1</u>	<u>Beta</u>	<u>R Square</u>
Step 1 Negative Impact (NI)	0.26**	
Solving the Problem (STP)	0.50**	0.36
Step 2 NI	0.12	
STP	0.44**	
NI x STP	0.16	0.36

**p < 0.01, *p < 0.05

Table 9 (continued)

Analysis 2	Beta	R Square
Step 1 NI	0.26**	
Non-productive Coping (NPC)	0.25**	0.17
Step 2 NI	0.23	
NPC	0.25*	
NI x NPC	0.03	0.17
Analysis 3	Beta	R Square
Step 1 Negative Sum (NS)	0.28**	
STP	0.47**	0.34
Step 2 NS	0.21	
STP	0.44**	
NS x STP	0.08	0.3
Analysis 4	Beta	R Square
Step 1 NS	0.28**	
NPC	0.28**	0.20
Step 2 NS	0.06	
NPC	0.22*	
NS x NPC	0.24	0.20
Analysis 5	Beta	R Square
Step 1 Positive Impact (PI)	0.00	
STP	0.51**	0.26
Step 2 PI	0.39	
STP	0.42**	
PI x STP	0.43	0.26

**p < 0.01, *p < 0.05

Table 9 (continued)

<u>Analysis 6</u>	<u>Beta</u>	<u>R Square</u>
Step 1 PI	0.14	
NPC	0.37**	0.15
Step 2 PI	0.09	
NPC	0.36**	
PI x NPC	0.05	0.15
<u>Analysis 7</u>	<u>Beta</u>	<u>R Square</u>
Step 1 PS	0.01	
STP	0.51**	0.27
Step 2 PS	0.25	
STP	0.57**	
PS x STP	0.26	0.26
<u>Analysis 8</u>	<u>Beta</u>	<u>R Square</u>
Step 1 Positive Sum (PS)	0.17*	
NPC	0.38**	0.16
Step 2 PS	0.28	
NPC	0.43**	
PS x NPC	0.12	0.16

**p < 0.01, *p < 0.05

Qualitative Analyses

Interview

Initially all interviews were transcribed verbatim and then a thorough content analysis was carried out (Argyle, Furnham and Graham, 1981). Information was then coded and grouped according to the sub-categories of the semi-structured interview. Emphasis was placed upon

the coping process rather than outcome per se. This provided information from each interviewee in each of the following areas:

- (1) Type of event experienced,
- (2) Initial coping strategies,
- (3) Coping strategies considered effective,
- (4) Appraisal of Personal Development,
- (5) Reappraisal of event (including evaluation forms).

Type of Events Experienced

Interviewees were asked to select an event that had had a significant effect on them over the past year and about which they would be willing to talk. All interviewees selected a significant event in their life that they initially viewed as negative. Confusion, anger, fear, self-blame and worry were the initial thoughts and feelings associated with the event (see appendix 14). Table 10 illustrates the types of event described by the interviewees.

Table 10. Event described by Interviewees

<u>Type of Event</u>	<u>Frequency</u>	<u>Male/Female</u>
Family Conflict	7	5/2
Problems with Sexual Relationships	3	1/2
Death in the Family	3	1/2
Major Life Change	3	1/2
Peer Conflicts	2	0/2
Serious Illness	2	2/0

Initial Coping Strategy

As an initial response to the significant event, 25 coping strategies were described by the participants as some individuals had indicated that they utilised more than one approach (see appendix 15). Each initial coping response described by the participants was noted verbatim and then themes were extracted. Table 11 illustrates these themes and the criteria for inclusion.

Table 11. Themes of initial coping strategies.

<u>Theme</u>	<u>Inclusion Criteria</u>
Going it alone	Deliberately spending more time alone (even if this involved some activity), or deliberately not talking to others.
Try to forget/no action	A conscious decision to forget about/not respond to the event.
Exercise caution	Becoming more careful/cautious in approach to life as response to event.
Positive action	A change of behaviour in order to directly act on the situation.
Talking to others	Discussing actual event, or consequences of event with others.
Positive thought	Considering possible solutions to the situation.

Table 12 shows the relationship between the coping themes described above and the types of events experienced.

Table 12. Relationship between initial coping strategy used and type of event.

<u>Coping Strategy</u>	<u>Used in Type of Event (frequency)</u>	<u>Total Frequency</u>
Going it Alone	Family Conflict (4)	6
	Death in the Family (1)	
	Illness (1)	
Positive Action	Death in the Family (2)	5
	Sexual Relationships (2)	
	Major Life Change (1)	
Try to Forget/No Action	Death in the Family (1)	4
	Peer Conflicts (1)	
	Illness (1)	
	Major Life Change (1)	
Talking to Others	Family Conflict (4)	4
Negative Affect	Family Conflict (2)	2
Exercise Caution	Peer Conflicts (1)	2
	Major Life Change (1)	
Positive Thought	Sexual Relationships (2)	2

As Table 12 illustrates some coping strategies appear to be linked to specific events. For example, talking to others and negative affect are only mentioned as initial responses to family conflict, while positive thought is only related to sexual relationships.

Coping Strategies Considered Effective

Interviewees were asked to consider a time when they felt like giving up on dealing with the situation but did not. They were then asked to describe how they managed to get through this time, which for all interviewees was a negative situation (see appendix 16). The point being that if they considered these factors to be the ones that got them through the most difficult part of the situation then these can be considered coping strategies that participants believed to be effective. One participant could not identify a point that stood out as particularly difficult and therefore this question was not asked. Using the same analysis strategy as the initial coping responses, the participants answers were grouped according to themes, illustrated in Table 13.

Although each of the 19 respondents who responded only identified one strategy, two of these were thought to fall into two groups. “Tried not to get stressed” was felt to describe both positive thought and positive action, while “Time on the phone to my best friend” was considered to be both talking to others and receiving help from others.

Table 13. Themes of coping strategies considered effective.

<u>Theme</u>	<u>Inclusion Criteria</u>
Positive thought	As Table 11
Positive action	As Table 11
Talking to others	As Table 11
No action	As Table 11
Help from Other	Indication of another person as the main force for getting through the hardest part.
Activity	Description of activities that were not directly related to the event (e.g. getting involved in hobbies)
Keeping Strong	Deliberately showing that the problem was having no effect, therefore shutting themselves off from the problem and 'keeping strong'.

Table 14, as in Table 12, relates these strategies to type of event experienced. Table 14 shows the majority of participants felt it was their response, rather than help from others that got them through the most difficult point of the situation, which suggests at least some sense of personal influence on the situation. Strategies that they felt worked ranged from those directly related to the problem to more indirect methods, including no action at all.

Table 14. Relationship between 'effective' coping strategy and type of event experienced

<u>Coping Strategy Used in Type of Event (frequency)</u>		<u>Total Frequency</u>
Positive Thought	Sexual Relationships (2)	
	Family Conflict (1)	
	Illness (1)	
	Peer Conflict (1)	5
Help from Others	Family Conflict (2)	
	Death in Family (1)	
	Life Change (1)	4
Talking to Others	Family Conflict (2)	
	Death in Family (1)	3
Activity	Family Conflict (1)	
	Life Change (1)	
	Death in Family (1)	3
Positive Action	Peer Conflict (1)	
	Life Change (1)	2
Keeping Strong	Peer Conflict (1)	
	Family Conflict (1)	2
No Action	Sexual Relationships (1)	
	Family Conflict (1)	2

Assessment of Personal Development

Interviewees were asked to consider whether they had learned anything important about themselves from the coping process, with specific reference to managing to get through the

hardest part (see appendix 17). This was done in order to provide an alternative construct of outcome, i.e. how was going through this process useful to you as a person. The same participant who could not describe a “hardest part” of the situation did not feel able to answer this question. A second participant responded with “life isn’t all that simple” and even though invited to expand could not describe something that they had learned about themselves rather than something they had learned generally. The responses of the other 18 participants were again grouped by themes:

Strength: description of good personal strength.

Good Coper: description of being a good coper.

Personal Qualities: description of being trustworthy/considerate.

Non-Involvement: description of being right not to get involved.

Relationships: description of more positive attitude to relationships.

Control: description of being able to keep control.

Communication: description of being a good communicator.

One participant stated that they “can deal with things and I am a strong person” and their response was therefore included in both groups 1 and 2. Again these themes were related to type of event experienced and this is illustrated in Table 15.

Table 15. Relationship between personal development and type of event experienced

<u>Learned About Self</u>	<u>Type of Event (frequency)</u>	<u>Total Frequency</u>
Personal Qualities	Family Conflict (2)	
	Death in Family (1)	
	Peer Conflict (1)	
	Illness (1)	5
Strength	Death in Family (2)	
	Major Life Change (1)	
	Peer Conflict (1)	4
Good Coper	Major Life Change (1)	
	Family Conflict (1)	
	Sexual Relationship (1)	3
Control	Major Life Change (1)	
	Peer Conflict (1)	2
Relationships	Sexual Relationship (1)	
	Family Conflict (1)	2
Communication	Family Conflict (2)	2
Non-involvement	Family Conflict (1)	1

Reappraisal of the Event

Reappraisal of the event was approached in both an indirect and a direct way. During the interview participants were asked to look back on the situation and consider what advice they would give to a friend experiencing the same event (see appendix 18). This was an

attempt to discover whether, given the same situation they would recommend a friend responded in a similar way. The rationale was that advice is given because it is considered to be effective, therefore the more similarities with their own actions, the more effective they considered these actions to be. Six advice themes were extracted from the content analysis and these are illustrated in Table 16.

Table 16. Themes of advice given by participants

<u>Theme</u>	<u>Inclusion Criteria</u>
Talking to others	As Table 11
Keep strong	As Table 13
Positive action	As Table 11
No action	As Table 11
Positive thought	As Table 11
Distractive thought	Deliberately trying not to think about the situation.

These results are compared with each participants, represented by type of event experienced, 'effective' coping strategy in Table 17.

Table 17 illustrates that 45% of participants would advise using the same coping strategy as they had utilised. This reflects the fact that when directly questioned, 55% of participants stated they would change at least a part of their coping response, while 45% would not change anything.

Table 17. Relationship between 'effective' coping strategy, advice given and type of event experienced

<u>Event</u>	<u>Effective Coping Strategy</u>	<u>Advice</u>
Family Conflict	Positive Thought	Positive Action
Family Conflict	Talk to Others/Help from Others	Talk to Others
Family Conflict	Help from Others	Talk to Others
Family Conflict	Talk to Others	Talk to Others
Family Conflict	Activity	Talk to Others
Family Conflict	No Action	No Action
Family Conflict	Keep Strong	Keep Strong
Sexual Relations	No Action	No Action
Sexual Relations	Positive Thought	Positive Thought
Sexual Relations	Positive Thought	Talk to Others
Death in Family	Help from Others	Distractive Thought
Death in Family	Talk to Others	Distractive Thought
Death in Family	Activity	Keep Strong
Life Change	Help from Others	Talk to Others
Life Change	Positive Action	Positive Action
Life Change	Activity	Keep Strong
Peer Conflict	Positive Action/Positive Thought	Positive Action
Peer Conflict	Keep Strong	Positive Action
Illness	Positive Thought	Positive Thought
Illness	-----	Distractive Thought

Evaluation Forms

The evaluation forms were included as a means of assessing the impact of the interview on participants. They also provided a direct way of assessing reappraisal. Although only nine of

the forms were returned some themes did emerge. All participants that responded found the interview useful (see summary in appendix 19). The most common reason given was the fact that it was an opportunity, in some cases the first, to actually discuss the event from their point of view. Typical comments included “I have never talked to anyone about myself and my life so it was pretty useful”. All nine individuals stated that they had expected the interview to be conducted in the way that it was. Most found it hard to pinpoint any questions that were either particularly useful or difficult. Those that did highlight useful questions pointed to those that helped them to explain how they coped with the event, for example “I found the question on what happened on the day of the crash and how I coped useful because it let me explain what happened and how I dealt with it to someone outside the family”. Only one interviewee stated that there were things that they would have liked to discuss but not given the chance.

All but three participants felt the same about the events discussed before and after the interview. Those that had gained a different perspective were positive about the change. For example “I feel slightly more positive about it”. However, all but one of the participants stated that the interview had made them feel different about themselves, and again this change was in a positive direction, examples of these responses include: “It has made me sort of accept myself and my problems”, “If I have any other problems I know how to deal with them”, “Its made me feel stronger and I feel able to cope with most things now”, “The interview made me feel a lot more positive about myself”, and “It had made me feel like I helped my family through the time”.

Discussion

The results of this investigation will be discussed with reference to the model of the relationship between life events, coping and depression presented. The areas of depression, gender differences, and life events will be considered first. The coping process will then be discussed, alongside the main hypotheses. Finally, the clinical implications and limitations of the study will be considered.

Depression

The Birleson depression inventory was used to measure depression in this study. This measure has not been previously used on a population of 13-15 year olds yet it proved to be an internally reliable instrument. Birleson (1981) suggested a cut off point of 11 to indicate clinical depression in slightly younger children (mean age 12 years and 1 month). If this cut off point is adopted for the present study then 29% of participants would be considered clinically depressed. The results parallel previous research findings that levels of depressive symptoms are fairly high amongst adolescents (Graham and Rutter, 1985) and highlight the importance of studying a non-clinical population.

Gender Differences

The present study surprisingly revealed no significant gender differences in levels of depression, life events experienced or coping strategies used. With the exception of life

events experienced, all the major researchers in this field have found marked gender differences (Compas et al, 1993; Frydenberg and Lewis, 1993; Schwartz and McCombs-Thomas, 1995).

One exception, Goodman et al (1995) did not find significant differences between males and females in depressive symptoms. Their population, however, was aged between 8 and 12 years and research has shown that a significant gender difference, with females showing greater levels of depressive symptoms, tends not to occur until adolescence (12 years and upwards) (Rutter, 1985).

The fact that there is no significant gender difference in levels of depression is less surprising considering that there were also no significant differences in coping strategies used. Nolen-Hoeksema (1987) suggested that it is differences between female and male response sets, which are largely culturally determined, that lead to differences in depression. The present study produced no evidence of differing female and male response sets in this population. The reasons for this finding are not within the scope of the present study to hypothesise, yet it suggests that cultural and societal influences, specific to this area and age group, determine, at least partially, the coping strategies adopted by both genders. Frydenberg and Lewis (1993) also illustrated this point when they described how the most utilised coping strategy (from 18 scales) of males in Melbourne, Australia was physical recreation and attributed this finding to the very health conscious culture of that city.

In terms of the present study, if the 18 scales of coping, rather than just the two main factors, are considered there is some evidence of differences in male and female coping, but

they do not follow the traditional pattern. *Tension reduction*, for example, is commonly considered part of the male response set (Nolen-Hoeksema, 1987; Seiffge-Krenke, 1995) yet in this study it is used more often by females. Further investigation into gender differences in coping style, for this population, could reveal that the profile of gender-specific response sets amongst adolescents may well be changing, perhaps in line with their society and culture.

Life Events

Life events experienced by this population as significant were assessed by both the Life Events Checklist (LEC) and through the semi-structured interview.

The LEC demonstrated that participants experienced a wide variety of life events (mean 8.6 out of a possible 50). Negative events were only slightly more frequent than positively appraised events which suggests that the reality for these adolescents is a far less 'problem saturated' existence than some theorists consider it to be (Coleman and Hendry, 1990).

School oriented events were the most frequently experienced and these are generally considered to be minor events or daily hassles (Stark et al, 1989). The most frequently experienced event that other researchers have termed a 'major life event' (Sandler, Reynolds, Kliwer and Ramirez, 1992) was death of a family member, experienced by 32.7% of participants. As minor life events were the most frequently indicated by

participants as having an effect on their lives, there is also support for the views of Compas et al (1993) and Seiffge-Krenke (1995) that minor life events and daily hassles are more predictive of stress than major life events. Although, several of the life events described as significant in the interviews would be considered 'major' (parental separation, major accident, death of grandparent), there were also several 'minor' type events described (peer conflict, problems with relationships, arguments with parents), which further supports the view that studying only the effect of major life events on young people would leave wide gaps in our understanding of their distress. Thus, in this study, both the qualitative and quantitative data suggested similar conclusions.

Relatively few items were universally rated as positive or negative. Notably parental divorce, death of a close friend and getting pregnant, all events considered to be major life stressors for this age group (Berden, Althaus and Verhulst, 1990), were rated as positive by at least one of the respondents. Getting your own job (27.7%) was the most frequently occurring positively rated event, while serious illness in the family (24.5 %) was the most frequently experienced negative event. The fact that relatively few events were universally considered negative or positive illustrates the importance of asking participants to indicate the effect of an event on them as an individual rather than assuming the direction of effect in advance. This supports the view that any life events scale should include a self-rating of either positive or negative (Johnson and McCutcheon, 1980; Seiffge-Krenke, 1995). In terms of the presented model, this finding suggests that appraisal of the event is indeed a key factor in the route between life events and depression.

As was anticipated by the feedback loops on the presented model there was a moderately significant, positive relationship between negative life events (sum and impact) and level of depression. As has already been demonstrated, there is little evidence to suggest that specific life events have universally negative impacts. Therefore, the occurrence of most significant life events, is not considered to be directly related to depression. What is perhaps more likely, although causal direction was not proven, is that the chance of a life event being appraised as negative is greater if the individual is already experiencing some depressive symptoms (Beck et al, 1979). Again, this illustrates the key role of appraisal in the model.

In terms of the life events described in the interview, an important point is that all events were described as being initially appraised as negative. This was despite the fact that the sample of the population chosen for interview had a broad range of levels of depression. Obviously, participants described just one event/situation and many other factors, including family climate (Hetherington and Blechman, 1996) and social support (Hartup, 1992), could have affected their depression levels. However, it must be noted that positive life events were frequently indicated on the LEC. There appeared to be some connection between the terms 'significant' and 'negative' in the minds of the interviewees and this suggests that the culturally popular 'problem saturated' stories of adolescence (Coleman and Hendry, 1990) may be dominant in the minds of the young people themselves.

Coping Strategies

Coping strategies were measured using the Adolescent Coping Scale (ACS), and in more depth, including changes in coping over time, through the semi-structured interview.

Analysis of the results from the ACS revealed that only two out of the three coping scales described by Frydenberg and Lewis (1993), *solving the problem* and *non-productive coping* were reliable enough to use in statistical analysis. Even these two scales had only moderate internal reliability. Frydenberg and Lewis (1993) describe how the third scale, *reference to others* is used less frequently than *solving the problem* and *non-productive coping*, but suggest that it has moderate reliability. The present study brings into question the validity of this scale, particularly as it involves a much larger sample.

One of the possible reasons why the ACS was not an extremely effective tool can be shown by considering the responses given to question 19 which invited participants to describe another coping strategy they used that was not identified in the other 18 items. 76 out of the 159 participants described an extra coping strategy which in itself suggests that there are some gaps in the ACS in terms of it being a comprehensive measure of coping in this age group.

It is interesting to note how similar some of these themes, extracted from these 76 strategies (Table 7), are to the 18 strategies outlined by Frydenberg and Lewis (1993). For example, *doing hobbies* could be seen as approximating *seek relaxing diversions* (scale 17), *coping alone* similar to *keep to self* (scale 13) and *not thinking about the problem* akin to *ignoring the problem* (scale 11).

Most notably, *talking about the problem* is identified, in question 19, by over 10% of the total sample as a frequently used strategy, yet item 1 of the ACS asks whether talking to others about your concern is a coping strategy that is used. It appears that for a variety of possible reasons, (such as item wording, instruction misunderstanding, cultural differences) the ACS is not getting the information it seeks from this population and this may partially explain the moderate to poor reliability of its scales.

The ACS did provide two distinct coping strategies, *solving the problem* and *non-productive coping* that differed both in the amount that they were utilised and their relationship to depression. *Solving the problem* was used significantly more frequently than *non-productive coping*. This replicates findings from Frydenberg and Lewis (1993).

As was anticipated by hypothesis one, *solving the problem* was negatively related to depression while *non-productive coping* had a weaker, but still significant, positive relationship with depression. However, the role of coping style as a moderating variable between life events and depression was not demonstrated in the regression analysis, and hypothesis two was not supported. This lack of support for hypothesis two may reflect the fact that the population under investigation approximated a normal distribution, with few individuals inhabiting the extreme ends of the spectrum of coping. With higher numbers of participants showing more extreme coping profiles, in a clinical population for example, a moderating effect may have been shown.

What is clear, however, is that, in a very general sense, and in terms of depression as an outcome measurement, *solving the problem* could be considered an 'effective' coping

strategy and *non-productive coping* 'ineffective'. This replicates findings from Lazarus and Folkman (1991), Compas et al (1993) and Seiffge-Krenke (1995) who all found that problem-focused coping strategies were more effective in maintaining low levels of depression than strategies based on inactivity and withdrawal. However, although these two strategies are distinct, and importantly so, both in their use and in their relationship to depression, the present study supports the arguments of Seiffge-Krenke (1993, 1995) and Frydenberg and Lewis (1993) that the simple generalisation of these strategies into effective/ineffective, good/bad, functional/dysfunctional is not satisfactory. This can be argued from both a statistical standpoint, i.e. the scales themselves are only moderately reliable, and also from the qualitative data.

The qualitative findings suggest that the coping strategies considered effective, in terms of depression as an outcome measure, do not fully reflect the adolescents own experiences of effectiveness. During the interview participants were asked to describe a point where the situation became particularly difficult and then asked to state what they had done to alleviate the difficulty. As has been previously argued, it was felt that the coping strategies described in response to this question could be considered coping strategies that were appraised as effective. There were seven different themes extracted from the strategies described: *positive thought, positive action, talk to others, help from others, activity, keep strong and no action.*

Considering these themes in relation to the 18 scales of the ACS it is suggested that *positive thought* and *positive action* are similar to *solving the problem* (work at solving the problem to the best of my ability), and *activity* incorporates, but not exclusively, *physical*

recreation (keep fit and healthy). *Solving the problem* and *physical recreation* are both items that load on the *Solving the Problem* factor. *Talk to others* and *help from others* could both be thought of as akin to *social support* from the ACS (talk to other people about my concern to help sort it out) which is part of the *Reference to Others* scale. *No action* and *keep strong* are similar to *not coping* (I have no way of dealing with the situation), *keeping to self* (don't let others know how I am feeling) and *ignore the problem* (shut myself off from the problem so that I can avoid it) from the *Non-Productive Coping* scale.

Obviously, comparing the themes from this study with the scales in the ACS is only a rough approximation, but what it does show is that, using the outcome measure of what the interviewees themselves considered effective, the coping strategies described correspond to; nine participants utilising *Solving the Problem*, six *Reference to Others* and four *Non-productive Coping*. Therefore, in terms of the results from this study if *Solving the Problem* is considered the only 'effective' coping strategy then strategies that 10 individuals, 50% of the sample, have described as useful are being ignored.

There is a similar argument to be made with the responses to the question, "what advice would you give to a friend in the same situation?". Again, it has been argued that responses to this question would be strategies that the interviewees considered effective, if not, it would not be useful advice they were giving. Nine of the participants mentioned exactly the same strategies that they had previously described as effective for them, and a further three thematically similar strategies (e.g. *positive action - positive thought, help from others - talk to others*), suggesting that the majority of participants were content with their own method of coping.

If these responses are then related to the ACS, with *distractive thought* finding the best fit with *ignore the problem*, it is found that of the participants who were content with their own method of coping, four advocate *Solving the Problem* type-strategies, four *Reference to Others* and three *Non-productive Coping*. For the full group advice given breaks down into, eight advising *Non-productive Coping*, and six each for *Solving the Problem* and *Reference to Others*. Comparing the qualitative and quantitative data in this way illustrates that even if coping is reduced to three main strategies there is evidence to suggest that all three strategies were considered effective by some participants. This finding brings into question the value of searching for particular sets of coping responses that can universally be considered effective. This can be further emphasised when considering that investigation of gender differences did not reveal traditional 'female' (ineffective) and 'male' (effective) response sets.

The content analysis of the interview transcripts also revealed that coping strategies used in response to a particular event changed over time, a finding previously demonstrated by Seiffge-Krenke (1995). Initially there were as many coping strategies that would be considered 'dysfunctional' in the traditional coping literature (Lazarus and Folkman, 1991; Seiffge-Krenke, 1995), *going it alone*, *negative affect*, *try to forget/no action*, as there were 'functional' coping strategies, *positive action*, *positive thought* and *talking to others*. The type of coping strategies used changed dramatically when interviewees were asked to describe the methods they had used to get through the most difficult point of the situation. Neither *going it alone* nor *negative affect* were mentioned, being replaced by *activity*, *keeping strong* and *help from others*. Traditionally 'functional' strategies were mentioned by

15 participants and 'dysfunctional' by four. When interviewees were asked to look back on the situation and give advice to anyone experiencing the same event, i.e. reappraisal, the profile changed once again, 12 of the interviewees advised 'functional' strategies and eight 'dysfunctional'.

Therefore, if these three sets of results are taken to represent strategies corresponding to the beginning, a mid point and the end of a coping process it is clear that, in this study, coping strategies are fixed neither in terms of internal traits (Hann, 1977) nor the situation (Lazarus and Folkman, 1991). Coping appears to involve a series of responses, which changes, in the light of experience, as the given situation develops. This finding suggests that the inclusion of feedback loops on the model is of paramount importance.

Although the interviews suggested that coping strategies are not fixed in relation to a given situation there was some evidence to suggest that the context does indeed effect the coping strategies used. For example, *talking to others* was indicated as a frequently used and effective coping strategy at all three time points by those describing family conflicts but was rarely mentioned by those involved in other situations. The development of the coping process also seemed to be affected by context. Those experiencing death in the family, all for the first time, described using *solving the problem* and *reference to others* type techniques themselves but, in retrospect, all three interviewees advised others to use *non-productive type* strategies. This finding could well be related to locus of control. A death in the family is not something that can actually be changed, and as such the adolescent may perceive an external locus of control (Benson and Deeter, 1992). It has been argued that defensive type strategies such as *withdrawal* and *non-productive coping* may be most

effective in such a situation (Lazarus and Folkman, 1991; Seiffge-Krenke, 1995) and this seems to be a conclusion that the adolescents have reached for themselves. Therefore, although more active techniques may be part of the coping process in this situation, the retrospective, general advice is not to actively seek a solution to the problem.

It is clear that, in terms of increasing understanding of the coping process, using both qualitative and quantitative data was vital. The ACS, although showing a significant relationship between coping strategy used and level of depression, proved to be only moderately reliable at best. One of the scales, *reference to others*, had to be rejected from subsequent analysis, due to poor internal reliability, which left a broad gap in understanding, especially considering that strategies similar to the *reference to others* scale were described as effective by several interviewees. However, perhaps most importantly, the qualitative data allowed a broader understanding of what could be considered 'effective' coping and it is with this in mind that the clinical implications of this research are discussed.

Clinical Implications

The findings of this study, in terms of the coping process, has implications for clinical interventions involving adolescents. As it has been argued that simple generalisation of *solving the problem* and *non-productive coping* into, respectively, effective and ineffective coping strategies, is not satisfactory. This would suggest that training programs based on teaching universally effective coping responses would necessarily fail some individuals.

The results clearly demonstrate the importance of appraisal in the coping process. This suggests that, clinically, the way an individual appraises his/her own coping response may be as important as the response itself. When given the opportunity 95% of participants were able to describe a time they responded, in what they considered to be an effective manner, to a negative life event. For some this effective response was the result of problem solving, for others it was non-productive coping, or some previously undefined strategy. This positive self-appraisal of the interviewees coping response was mirrored by the positive assessment of their personal development as a result of the coping process. The ability to focus on personal successes in the face of a negative life situation is advocated by both traditional psychologists (Kanfer and Goldstein, 1991) and social constructionists (Burr, 1995) as an important method of combating psychological distress. Therefore, in terms of the model of coping, presented on page 16, an intervention aimed at the appraisal of coping responses rather than the responses themselves may well prove effective. Narrative therapists have already proven that this type of intervention is effective with individuals experiencing difficulties coping with life events (Besa, 1994; White, 1995).

As stated, the interview used in the present study attempted to incorporate ideas from narrative therapy. The analysis of the evaluation forms, although returned by only nine participants, suggests that the interview was indeed effective in helping participants to reappraise their own coping responses. All nine respondents found the interview useful, most commonly because it gave them a chance to actually tell the story of the chosen event from their point of view, often for the first time. Also, and perhaps more importantly, all but one of these individuals stated that, following the interview, they felt more positive about

themselves and their coping responses. These findings suggest that it would be clinically useful to use a similar interview schedule with young people who experience difficulties coping with events.

Limitations of the Present Study/ Future Research

The present study investigated life events, coping strategies and depression in a non-clinical population of 13-15 year olds and as such provided clinically useful findings. Although a non-clinical population was considered most suitable for this study, to undertake a similar investigation with a clinical population would provide a useful comparison (although Seiffge-Krenke (1993) suggests few differences between clinical and non-clinical populations) and possibly uncover individuals who utilise strategies at the extreme ends of the coping spectrum, aiding statistical analysis. This is suggested as a route for further research.

During the course of the present study it also became clear that the population under investigation had certain properties that differentiated the participants from those in previous studies. No gender differences were found in either depression levels or coping strategies. It would be helpful to explore this apparent gender equality more thoroughly and also to discover whether this pattern would be repeated in another population. Otherwise it is clear that any generalisations made from the results must, as with many generalisations, be made with caution.

The use of the Adolescent Coping Scale in this study reaped limited reward. Due to poor internal reliability much of the information gathered was not useable. Also, the ACS did not pick up the range of coping strategies used by this population and may well be too culturally specific. Responses on the ACS were also in relation to general coping rather than specific events. The interview showed that specific events seem to effect the type of coping strategies used and it would have been beneficial to investigate the relationship between specific events and coping strategies psychometrically. The semi-structured interview proved more beneficial in understanding coping than the ACS. The interview also demonstrated that although depression is an important variable for this population, using it as the sole outcome measure leaves broad gaps in the understanding of adolescent coping strategies. Future research would benefit from exploring the apparent dichotomy between the qualitative and quantitative data. It would also have been useful to undertake more interviews, although this was out of the scope of the present research, in order to determine whether the themes outlined were similar for a larger population.

Summary/ Conclusions

The aim of this study was to investigate the coping process in a group of non-clinical adolescents in order to identify routes for clinical interventions when the challenges presented by life events become overwhelming. This necessitated exploration of life events, levels of psychological distress (depression) and the coping process itself. A model of these variables was presented, then explored using qualitative and quantitative methodology.

Levels of depressive symptoms were found to be relatively high amongst this population, with 29% reporting levels above Birleson's (1981) cut off point for clinical depression. This finding supported the use of a non-clinical sample. However, the use of depression as a sole outcome measure was not supported.

The Life Events Checklist demonstrated that participants experience a similar number of positive and negative life events, with minor events proving as salient as major events. Few events were regarded as intrinsically positive or negative. This finding supported the use of a measure that included self-ratings of the effect of an event.

The Adolescent Coping Scale yielded two coping strategies with moderate internal reliability, *solving the problem* and *non-productive coping*. A third scale was rejected due to poor internal reliability. *Solving the problem* was used significantly more often, by this population, than *non-productive coping*. Correlational analyses revealed that *solving the problem* is significantly related to low levels of depression and *non-productive coping* to high levels. However, the statistical limitations of the measure, alongside the qualitative data, suggested that *solving the problem* could not be considered the single 'effective' coping strategy.

The interviews demonstrated that the same individuals use different coping strategies in response to the same situation, suggesting these strategies do not represent internal traits and are not totally situationally specific. Coping responses evolve over time and may well involve both traditionally functional and dysfunctional strategies. The interviews also revealed that adolescents themselves describe a range of coping strategies, including non-productive coping, as effective. This suggested that describing coping strategies as

universally effective/ineffective was not clinically useful. Appraisal was shown to be a key element of the coping process and it was argued that interventions based on reappraisal of coping responses rather than changing the responses themselves would be beneficial.

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Appendix 9: Frequency Distribution of Scores on the Birleson Depression Inventory

<u>Score</u>	<u>Frequency</u>	<u>Percentage</u>	<u>Cumulative Percentage</u>
1	1	0.6	0.6
2	5	3.2	3.9
3	3	1.9	5.8
4	12	7.7	13.5
5	13	8.4	21.9
6	10	6.5	28.4
7	18	11.6	40.0
8	8	5.2	45.2
9	21	13.5	58.7
10	10	6.5	65.2
11	9	5.8	71.0
12	7	4.5	75.5
13	7	4.5	80.0
14	6	3.9	83.9
15	3	1.9	85.8
16	3	1.9	87.7
17	2	1.3	89.0
18	5	3.2	92.3
19	2	1.3	93.5
20	4	2.6	96.1
22	2	1.9	98.1
23	1	0.6	98.7
24	1	0.6	99.4
30	1	0.6	100

Appendix 10: T-tests for Gender Differences in the Sample

		Males (N = 89)	Females (N = 70)	t value (df)	Two tailed significance
Depression	Mean (SD)	9.59 5.64	9.89 4.73	0.36	0.71
Coping Strategies: Solving the problem	Mean (SD)	20.43 4.29	20.06 4.23	0.52	0.60
Non-productive coping	Mean (SD)	24.08 5.78	25.20 5.66	1.16	0.25
Life Events: Negative total	Mean (SD)	4.38 4.31	5.21 3.98	1.25	0.21
Negative impact	Mean (SD)	7.64 8.73	9.52 9.50	1.25	0.21
Positive total	Mean (SD)	3.94 3.42	3.72 2.36	0.45	0.65
Positive impact	Mean (SD)	7.11 8.14	6.43 4.70	0.62	0.53

Appendix 11. Summary of Life Events Experienced by Participants

<u>Life Event</u>	<u>% experiencing it</u>	<u>Rating</u>
Getting a good report	55.3	mixed
Recognition for good grades	39.0	mixed
Trouble with sibling	35.2	mixed
Making sports team	34.6	mixed
New boy/girlfriend	33.3	mixed
Joining new club	33.3	mixed
Trouble with teacher	33.3	mixed
Death of family member	32.7	mixed
Trouble with classmates	31.4	mixed
Increased arguments with parents	29.6	mixed
Increase in parents arguing	28.3	mixed
Getting own job	27.7	positive
Serious illness in family	24.5	<i>negative</i>
Moving to new home	23.3	mixed
Change in parents financial status	23.4	mixed
Parent gets new job	22.6	mixed
Losing close friend	21.4	mixed
In trouble with police	21.4	<i>negative</i>
Getting bad report	20.1	mixed
Failing to make sports team	17.6	mixed
Parents divorced	16.4	mixed
Decrease in parents arguing	16.4	mixed
Special recognition for good sport	15.7	positive
Breaking up with boy/girlfriend	15.7	mixed
Sibling leaving home	15.1	mixed
Serious illness in friend	15.1	<i>negative</i>
Death of close friend	15.1	mixed
Parents separated	13.2	mixed
New sibling	13.2	mixed
Failing exam	12.6	mixed
Suspended from school	10.7	mixed
Parent lost job	10.1	mixed
Increased absence of parent	9.4	<i>negative</i>
Parent in trouble with police	8.8	mixed
Major personal illness	8.2	<i>negative</i>
Changing to new school	7.5	mixed
New step-parent	6.9	mixed
Losing job	5.7	<i>negative</i>
Getting own car	3.1	positive
Getting put in jail	3.1	mixed
Girlfriend getting pregnant	1.9	mixed
Getting pregnant	1.9	mixed
Having abortion	1.9	<i>negative</i>
Girlfriend having abortion	0.6	positive
Parent going to jail	0.6	<i>negative</i>

Appendix 12: Means and standard deviations for the 18 scales of the Adolescent Coping Scale

<u>Scale</u>	<u>Mean</u>	<u>Standard Deviation</u>
Seek Professional Help	1.64	1.07
Social Action	2.01	1.10
Not Coping	2.18	1.15
Seek Spiritual Support	2.32	1.42
Ignore the Problem	2.42	1.27
Self Blame	2.46	1.24
Invest in Close Friends	2.58	1.47
Tension Reduction	2.68	1.44
Social Support	2.72	1.20
Keep to Self	2.86	1.27
Seek to Belong	2.97	1.07
Focus on Positive	3.06	1.14
Worry	3.21	1.13
Seek Relaxing Diversions	3.39	1.34
Wishful Thinking	3.43	1.48
Focus on Solving Problem	3.51	1.06
Physical Recreation	3.55	1.30
Work Hard and Achieve	3.81	1.00

Appendix 13: Other Coping Strategies Identified by Participants

<u>COPING STRATEGIES</u>	<u>FREQUENCY</u>
Talk about it with my friends	10
Talk to my mum	6
Playing sports	5
Listen to music	5
Lock myself in my bedroom	4
Start an argument with my parents	2
Write in my diary.	2
Shout	2
Cry	2
Don't think about it.	2
Keep it to myself.	2
Go on walks in the country.	2
Ask my parents for help	2
Try to work it out.	2
Silence.	2
Do hobbies.	1
Make whoever is making me feel down feel humiliated.	1
Try and take my mind off it by doing something I enjoy.	1
Don't eat.	1
Walk off.	1
Make new friends.	1
Spend on myself.	1
Give to charity.	1
Be on my own.	1
Sit down and watch t.v..	1
Pray and wish it will go.	1
Eating.	1
Take whatever comes.	1
Forget about the things I need to do.	1
Play an instrument.	1
Ask girls out.	1
Be with my friends a lot	1
Pretend they are not happening.	1
I meditate every day.	1
Drink.	1
Speak to my sister.	1
Take pills.	1
Slit my wrists.	1
Become agitated and moody.	1
Play on the computer.	1
Ignore everyone and everything.	1

Appendix 14: Initial thoughts/feelings in response to significant event

<u>Type of Event</u>	<u>Frequency of Thought/Feeling</u>				
	<u>Confusion</u>	<u>Anger</u>	<u>Fear</u>	<u>Self-Blame</u>	<u>Stress/Worry</u>
Family Conflict	1	1	1		3
Death in the Family	1		1		1
Sexual Relationships	1			3	2
Peer Conflict	1		2		1
Major Life Change	2		2		3
Accident	1	1			1

Appendix 15: Initial Coping Strategies used by Participants

<u>Type of Event</u>	<u>Coping Strategy</u>
<i>Family Conflict</i>	Removed myself to my room Talked to friends Spent time in my room Talked to my mum Cry Talked to my best friend Got depressed Talked to my dad Go to my room Go to my room and play computer
<i>Death of a Loved One</i>	Tried to help Looked after dad Put ot the back of my mind Did not talk to anyone
<i>Peer Conflicts</i>	Be really careful, really quiet Made a decision that I couldn't stop it
<i>Problems with Sexual Relationships</i>	Thought about it Talked to myself Changed friends Tried to sort it out
<i>Major Life Change</i>	Became really cautious Became protective of sister Tried to forget about it
<i>Illness</i>	Nothing Watched telly in my room

Appendix 16: Coping Strategy used to "Get through the hardest part"

Type of Event

Coping Strategy

Family Conflict

Friends helped me through
 Step mum made me feel all happy
 Thinking about my mum, I didn't want to
 upset her
 Tried to be strong about it
 Talked to him and told him that I loved him
 Did not get involved

Death of a Loved One

Doing hobbies, keeping busy
 Time on the phone to my best friend

Peer Conflict

Tried not to get stressed
 Listened to music
 Read a book
 Made sure I didn't show myself to be weak

Problems with Sexual Relationships

Time
 Talked to myself
 Prayed a lot, read my bible

Major Life Change

My dad was really positive
 I've learned its pretty hard for money so I try
 not to ask for things

Illness

Always look on the bright side

Appendix 17: What did the coping process tell you about yourself that is important to know ?

Type of Event

Information

Family Conflict

Life isn't all that simple
 I can help other people if they help me
 That no matter what anyone says, I love her
 That I can be considerate and think about other people more than myself
 I like to bring things out in the open, talk about them and not lock them up inside
 I can sort things out, not run from them or hideaway
 That I can speak to people about things
 That I don't like getting involved when it is not to do with me

Death of Loved One

That I am there for people, they can trust me
 I am a strong, reliable person
 I am a strong person

Peer Conflict

I can keep control when I need to
 That I don't like to be weak
 I was considerate

Sexual Relationships

That I can cope with things, even if I don't enjoy coping with them
 I should watch what I am doing, what I am saying, the way I treat people and stop changing my mind all the time

Major Life Change

That I can deal with things
 I am a strong person

Illness

I work hard and my parents are proud of me, I'm proud too.
 I might get on the edge of crying but I never get really down, I can moderate it.

Appendix 18: Advice participants would give to others experiencing the same significant event

<u>Type of Event</u>	<u>Advice</u>
<i>Family Conflict</i>	Stay out of it Talk to someone Talk more You have to be strong Find someone you can trust and talk about it Try your hardest Try and talk together Sort it out together Give it a bit of time
<i>Death of a Loved One</i>	Put it to the back of your mind Try not to think about it Just keep going
<i>Peer Conflict</i>	Try and get your friend to write down all the things you do that annoy them and then hopefully you can try and change it You can't stop them, find someone else and build on that friendship
<i>Problems with Sexual Relationships</i>	Don't do it basically Be honest Try to sort out what you really feel
<i>Major Life Change</i>	Keep strong, carry on Don't think why me, you've got to deal with it Tell people, don't keep it all inside, talk about it
<i>Illness</i>	Just don't worry about it Just positive thinking

Appendix 19: Summary of Evaluation Forms

<u>Question</u>	<u>Frequency of Response</u>	
	<u>Yes</u>	<u>No</u>
Interview useful ?	9	0
What you expected ?	9	0
Any questions particularly useful ?	2	7
Any questions particularly difficult ?	1	8
Anything else you would have liked to discuss ?	1	8
Do you now feel differently about events ?	3	6
Do you now feel differently about yourself ?	8	1