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Identifying resilient and non-resilient middle-adolescents in a formerly black-only urban school

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The aim in this study was to develop a way of identifying resilient and non-resilient middle-adolescents in a formerly black-only urban residential (township) school, in order to ultimately support the development of learners' resilience under stressful circumstances. A Resilience Scale was developed to screen for resilient and non-resilient learners by means of self-evaluation. A Learning Behaviour Scale was developed to examine the ability of the teachers to reliably recognise learners' resilient and non-resilient academic and social behaviours. As a control, in-depth interviews were conducted, to evaluate the construct validity of results on the two scales qualitatively and to identify themes signifying resilience and non-resilience in the coping behaviour of middle-adolescents in a township school. The participants were 190 learners in Grade 8 and 9 who all completed the Resilience Scale, 12 learners selected on the basis of their Resilience Scale scores who were interviewed, and eight curricular teachers who completed the Learning Behaviour Scale in respect of the 12 selected learners. All the items of the Resilience Scale proved statistically reliable. However, the interview data profile differed from the Resilience Scale profile in the lower range, suggesting that the scale failed to reliably reflect non-resilience in the context of a formerly black-only urban school. The results on the Learning Behaviour Scale differed from both learner-based data sets, suggesting that the teachers were wholly unable to identify resilience and non-resilience in their learners.

Keywords: non-resilience; resilience; screening instrument

Introduction

The myriad stress factors confronting young adolescents, in the various contexts in which they find themselves, all hold grave potential of becoming risk factors, if the normal support structures are absent or poor. During this crucial developmental phase, so intensely experienced and so wide open to choices on so many fronts, challenges may come to be perceived as insurmountable, and adversity as calamitous. In their dealings with adolescents in difficult or traumatic circumstances, psychologists and educators have become increasingly aware of the powerful contribution of resilience, or the lack thereof, to the overall outcome represented by their choices and behaviours (Haggerty, Sherrod, Garmezy & Rutter, 1996:9-10).

South African schools in formerly black only urban residential areas (townships) and their community environment, including informal settlements, contain many risk factors with the potential of forming key barriers to learning. The factors include socio-economic deprivation, poor access to basic services, unemployment, crime and gangsterism, inaccessible and unsafe residential environments, poor parental involvement in educational matters, poor human resource development in schools, constraints in respect of language and communication (Department of Education, 2001:17-19) and the profound ravages of HIV/AIDS on all aspects of family life.

Protective social factors and individual characteristics of resilience are essential in helping individuals to cope and bounce back from such stressful experiences. More than ever, educators are confronted with the challenge of rendering and facilitating real support to vast numbers of learners contending with grave issues in their personal lives. Enabling educators to recognise

the resilient learner is equally as important as recognising the non-resilient, since such understanding would contain vital pointers to devise effective strategy.

To this end, the purpose in this study was to develop a reliable and feasible way of identifying resilient and non-resilient middle-adolescent learners in formerly black-only urban residential schools. It was hoped thus to enhance the role of these schools in creating a positive educational environment to identify, encourage and nurture resilience in all their learners. The key question which directed the enquiry was:

> By which means and criteria can resilient and non-resilient middle-adolescent learners in a South African township school reliably be identified?

The research question was unpacked to contain the following subquestions:

- What identification criteria for resilience are applicable to learners in Grade 8 and 9 in a South African township school, and how should the criteria be operationalised for these learners?
- By which criteria do learners in Grade 8 and 9 in a South African township school evaluate themselves as being resilient and non-resilient?
- By which criteria do teachers identify resilient and non-resilient learners in Grade 8 and 9 in a South African township school?

It was assumed that identification of resilience factors, based on a literature review on resilience, can help in understanding and supporting learners individually within-school and provide indicators to help build up resilience in non-resilient learners. It was further assumed essential to operationalise resilience developmentally for learners in Grade 8 and 9, accommodating how they tend to interact with the risk factors in their social environment. In the middle-adolescent life-phase it is predominantly through social interaction that individuals gain experience, receive reinforcement/punishment for their behaviour and are exposed to various role models, and all these experiences have an influence on their successes and failures in life. Finally, in line with Joseph's argument (1994:45) that the environment plays a major role in helping individuals express their abilities and traits, it was assumed that the formerly black urban residential area as a particular environment would influence the participants' expressions and degrees of resilience.

Resilience: Operationalising the construct for the particular developmental and social context

The study of resilience in its early literature mostly looked at individuals who, against expectations, survived adverse events in their care-giving environment (Werner & Smith, 1992:2; 1982:3). Resilience relates to 'how effectiveness in the environment is achieved, sustained or recovered despite adversity' (Kaplan, 1999:20). Resilient individuals are considered to have a hardy personality, because hardy individuals are likely to employ adaptive coping strategies and not maladaptive responses like denial or behavioural avoidance (Kaplan, 1999: 20-21). The following characteristics and factors have been found present in resilient children (Benard, 2004:14; Brooks & Goldstein, 2001:193; Burt, 2002:139; Haggerty, Sherrod, Garmezy & Rutter, 1996:14; Hauser, 1999:7; Joseph, 1994:28-31; Krovetz, 1999:7; Kumpfer, 1999:196; Thomsen, 2002:7; Werner & Smith, 1982:89-93):

- An internal locus of control, with a sense of purpose, challenge, commitment, responsibility and independence
- Assertiveness and problem-solving abilities
- A proactive, achievement-oriented nature, the ability to plan and have aspirations

- The ability to construe their experiences positively and constructively
- A positive self-concept
- A sense of coherence
- A sense of autonomy, spirituality, emotional stability
- Physical well-being, cognitive competencies
- Identification with competent role models
- Attractiveness to peers and adults
- Competence (socially), perceived efficacy
- Communality, nurturance, socialization
- A stable care-giving environment (good child-parent relationship)

In the present study, our project team formulated the following working definition:

> Resilience is having a disposition to identify and utilize personal capacities, competencies (strengths) and assets in a specific context when faced with perceived adverse situations. The interaction between the individual and the context leads to behaviour that elicits sustained constructive outcomes that include continuous learning (growing and renewing) and flexibly negotiating the situation.

The Resilience Framework of Karol Kumpfer (1999:185), represented in Figure 1, aims to review resilience forces within multiple environmental risk factors and the interaction between the high-risk environment and the internal resilience factors of the individual. The model consists of four main areas of influence and two areas of transactional processes, making up six major predictors of resilience (Kumpfer, 1999:183).

Kumpfer's model begins with an initiating event, which is a stressor or a challenge that signifies the disruption in the individual's homeostatic/stable life or environment but also sets

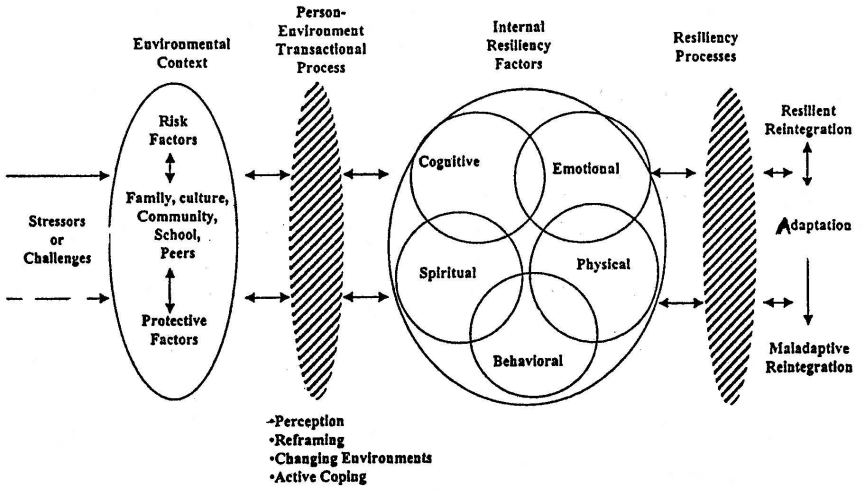

Figure 1 Resilience framework

in motion the process of resilient reintegration, to re-establish the disrupted homeostatic/stable life of the individual or environment (Kumpfer, 1999:185). The initiating event (which is the stressor or demand) marks the beginning of the resilience process, and the process ends with an outcome, which may constitute either resilient reintegration or maladaptive reintegration, the latter constituting non-resilience.

The resilience process as further proposed by Boyd & Eckert (2002:8-10; also Henderson & Milstein, 2003:5-6; Kumpfer, 1999:211) also holds that individual and environmental protective factors contribute to the type of reintegration that individuals will experience, helping them overcome adversity and experience healthy reintegration after exposure to challenges and stressors. The resilience factors will also help to actually buffer the risk factors the individual is prone to. The Resilience Process Model of Boyd and Eckert (2002:10) in Figure 2 illustrates the resilience and non-resilience processes and outcomes, occurring after adversity.

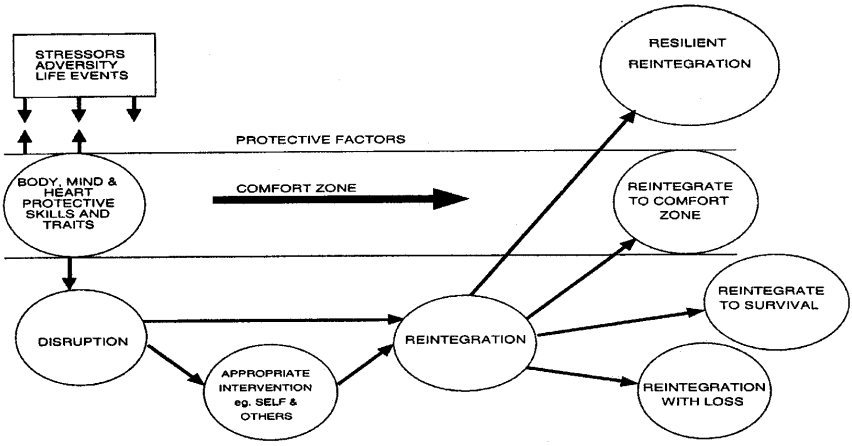

Figure 2 Resilience Process Model (Boyd & Eckert, 2002:10)

The Resilience Process Model (Figure 2) illustrates how the internal and external protective factors sometimes balance the stressors and enable the individual to experience life as stable and predictable, in a comfort zone (homeostasis). Every individual is presumed to have developed protective factors (learned characteristics or strategies from previously coping with stressors as well as internal traits and environmental factors) in order to maintain development and adaptation in the comfort zone. A comfortable/homeostatic state of resilience is shown to be a most preferred state, as an 'OK state' where everything seems normal and where healthy development is ongoing. However, sometimes disorganisation occurs when the available protective factors are not able to balance the stressors, resulting in disruptions, chaos and turbulences in the life or development of the individual. The appropriate and normal responses will be to fight to preserve the comfortable and predictable state, the comfort zone. Necessary

interventions from the individual and social systems are required to help the individual to bounce back and to regain the comfort zone, hence the reintegration process that helps to resolve the crisis and to re-establish and preserve the comfort zone (Boyd & Eckert, 2002:9).

In addition to reintegration to the comfort zone, there are also the options of (i) resilience, a state of growth or advancement that surpasses the comfort or homeostatic zone, the individual becoming greater than previously, and (ii) reintegration with loss, a state that is inclined to be dysfunctional, with individuals perceiving themselves as victims of unfortunate circumstances (e.g. succumbing to drug or alcohol abuse and suicide attempts, and displaying loss of self-worth or of the capacity to cope healthily).

Some individuals fail to recover fully from stressors and lead a life of emptiness, with loss of hope and enthusiasm, assuming negativism and employing unhealthy and antisocial coping strategies (Boyd & Eckert, 2002:9-10). Such individuals have reintegrated to states of survival and reintegration with loss. They are the non-resilient individuals who require intervention (care and support, life-skills training, prosocial bonding, opportunities, meaningful participation, clear structures and expectations), to exit the below-comfort zone (Thomsen, 2002:3). Non-resilience can indeed be equated to a downward spiral from which the individual may never recover (Winfield, 1994:41).

Middle-adolescence (± 14–16 years) as a developmental life cycle is characterised by changes and transitions in the biological, cognitive and psychosocial facets of life. These developmental changes are affected by the adolescent's social environment (Rutter, 1995:6). To function effectively, the developing middle-adolescent relies on the interconnections, communications and participation within and between the microsystems with which he/she has relationships, such as home, school and community (Bronfenbrenner, 1979:5-10).

The developmental transition of the adolescent is also characterised by risk factors and protective factors associated with adaptive and maladaptive development. Risk factors are associated with negative outcomes and disrupted development, whilst protective factors modify the effects of risk factors and are associated with resilience (Hoge, 1999:37-40). Risk behaviours that adolescents are likely to be involved in, also in the township environment, include drugs, crime and sex (Department of Education, 2002:iii-iv).

The Resilience Scale was designed to operationalize some of the characteristics and factors of resilience mentioned above. For the purposes of the questionnaire, the concept of resilience was aligned with the presence of desirable outcomes and the absence of undesirable outcomes. Items of the Resilience Scale represented descriptions of behaviour that related to the activities, events and characteristics assumed relevant and applicable to the middle-adolescent's life experiences in a township.

The study

Method

A multi-method design was applied of quantitative followed by qualitative data collection and analysis procedures, using (i) two self-developed questionnaires (a self-report questionnaire for learners — The Resilience Scale, and a questionnaire for teachers — The Learning Behaviour Scale) and (ii) in-depth interviews. The methodological purpose of the triangulation was to examine validity by converging, corroborating and establishing correspondence of results (Darlington & Scott, 2002:121) which differed in type (focused selection *vs* open expression), and had been obtained from different perspectives (learners and teachers). The pragmatic purpose was to compare the reliability/trustworthiness of the data types, in order to

find the most feasible way of identifying resilient and non-resilient middle-adolescents in a township school.

Participants

With the permission of the Department of Education, a secondary school in a township was selected as per convenience from those meeting two criteria: the school needed to have (i) a diverse composition of learners, from feeder areas with a diversity of socio-economic status, and (ii) an average or above average academic performance profile based on its matric results over the past three years. Informed permission was obtained from the principal of the selected school as well as learners in Grade 8 and 9. Of the more than 400 learners in Grade 8 and 9, 190 agreed to participate in the research by completing the Resilience Scale. From these participants, 12 learners were subsequently selected for in-depth interviewing on the basis of their Resilience Scale scores (three groups of four each — two boys and two girls — with scores in the highest, lowest and median range). Eight curricular teachers for Grade 8 and 9 were requested to complete the Learning Behaviour Scale for the 12 learners selected for the interviews, without knowledge of their scores on the Resilience Scale.

Research instruments

The Resilience Scale

The Resilience Scale was a self-developed 25-item, five-point Likert-type self-evaluation scale for the purpose of identifying resilient and non-resilient middle-adolescent learners in a township school. Items aimed to address essential criteria of resilience contained in Kumpfer's model (Figure 1), mostly with two questions or more representing each criterion. Fifty items were initially developed in English and piloted with learners in Grade 8 and 9 in a township school similar to the selected research school. The results of the pilot study led to the selection, revision and translation of the final 25-items (see Figure 3 for selected items), the process chiefly attending to concerns about question-overlap and reading comprehension difficulty, and some culturally sensitive issues. The Resilience Scale was bilingual, learner-friendly, short and easy to complete. Learners had the option of using English or one of two African languages (xiTsonga and Northern Sotho were used at the school).

The Learning Behaviour Scale

The Learning Behaviour Scale was a self-developed 20-item, five-point Likert-type observation scale, for use by curricular teachers. The items were designed along the same principles as the Resilience Scale and were directed at academic and social behaviours of middle-adolescents representing resilience. The questionnaire was in English, with some items in the negative form to enable measuring the consistency and dependability of the responses, and to discourage adherence to a particular response style (see Figure 4 for selected items). The curricular teachers were assumed to have a clear knowledge of the learners' academic and social behaviour on the grounds of their regular and frequent contact.

Interviews

In-depth interviews were conducted with 12 learners. Interview themes were based on the learners' responses on the Resilience Scale, but the structure was flexible to enable probing, to explore the meaning of questions and answers and to negotiate understanding (Ritchie & Lewis, 2003:141; Darlington & Scott, 2002:49). The interviews were audiotaped to avoid inter-

	Sentence	True of me	Often true of me	About half true of me	A little true of me	Not at all true of me
	Lefoko	***Nnete kudukudu***	***Nnete ga ntšhi***	***Magareng***	***Nnete ga nnyane***	***Maaka/ Aowa***
		5	**4**	**3**	**2**	**1**
1	My family accepts me the way I am *Ka gae ba nkamogela ka moo ke lego ka gona*					
2	I work hard at school *Ke šoma/ bereka ka maatla sekolong*					
3	When I have a problem, I try to solve it *Ge kena le mathata ke leka go a rarolla/fediša*					

Figure 3 Selected items from the Resilience Scale (English and Northern Sotho)

	Questions	Always	Very often	Sometimes	Rarely	Never
1	The learner is afraid to attempt new things					
2	The learner chooses positive role models					
3	The learner performs beyond what is expected, i.e. extends him- or herself					
4	The learner has NO adult support					

Figure 4 Selected items from the Learning Behaviour Scale

rupting the interview process and to enable attendance to relational aspects of the interview (Darlington & Scott, 2002:59). The interviews were conducted in Northern Sotho (all learners interviewed were proficient in Northern Sotho) and translated into English. The accuracy of the transcription was checked by reading the translated interview while listening to the recording (Terre Blanche & Durrheim, 1999:132).

Data analysis

The questionnaires

The Resilience Scale scores were compared for grade and gender. An item analysis was performed on the Resilience Scale to determine reliability by means of the alpha value and item-scale correlations. Exploratory factor analysis was done on the Resilience Scale to identify and examine the relationship between the variables and the number of factors needed to explain the variables, to interpret the factors and determine the amount of factor loading for each variable (Pett, Lackey & Sullivan, 2003:3-4). The factor analysis was initially executed for five factors identified as resilient characteristics, based on the design of the questionnaire. However, some items loaded weakly onto the factors and a one-factor analysis was consequently run. Finally, a comparison was made between the point selection per item on the Resilience Scale by the 12 interviewees and the point selection per item on the Learning Behaviour Scale by the curricular teachers who evaluated them, to examine the reliability of the teachers' observations.

The interviews

A thematic analysis of the interviews was done to look for key themes that described the essence of the data. Themes that related to the Resilience Scale and the research question were also of importance in understanding the data. Key themes included commitment (perseverance and motivation), future aspirations (sense of purpose), problem solving (sense of challenge), and references to role models, self-awareness (including self-confidence), sense of control (independence) and support (relationships, family and social adeptness).

The analysis yielded data to compare with the results of the two questionnaires, thereby mutually verifying credibility.

Results and findings

The number of participants in Grade 8 and 9 was evenly balanced (99 and 91, respectively) and there was no significant difference between their mean scores on the Resilience Scale, seeming to confirm some homogeneity across the age group in respect of their responses to the items on the questionnaire. The difference between the mean scores of the girls and the boys was significant (4.51 and 4.22, respectively). This result may have been influenced by the uneven sample distribution since the girls constituted 66% of the sample, suggesting that more girls may have been willing and/or able to stay after school to participate in the study, perhaps thereby contributing to some bias in the data.

Table 1 contains the results of the item analysis of the Resilience Scale and the distribution of the Likert point selections. An item correlation of more than 0.3 was assumed to measure what most items were presumed to measure. All 25 items obtained an item correlation of more than 0.3, with many above 0.4. This result, in combination with the alpha value of 0.811, seemed to establish the reliability of the Resilience Scale. However, the participants' strong tendency to select the highest point, presumably as the desirable score, was notable (between 47% and 89% per item allocated themselves 5), in contrast with exceedingly low numbers selecting 1–3. Four learners actually self-evaluated themselves as 100% resilient. The tendency towards high self-evaluation scores was also observed in another study conducted in a township school with learners in Grade 7 (Du Plessis, Bouwer & Grimbeek, 2001).

Table 2 shows the results of the factor analysis of the Resilience Scale for one factor. Most variables loaded fairly well on the one factor, which was accepted as Resilience, because

Table 1 Item analysis

Resilience Scale: Item analysis (alpha for all variables 0.811				% of learners per point selection				
Item No.	Item mean	Item variance	Item-scale correlation	1	2	3	4	5
1	4.816	0.424	.36	2	1	1	7	89
2	4.463	0.712	.36	2	2	9	25	63
3	4.389	0.964	.33	4	2	8	24	62
4	4.721	0.485	.32	2	1	3	14	81
5	4.105	1.052	.50	4	4	15	34	44
6	4.332	0.906	.50	2	3	15	21	59
7	4.426	1.002	.35	4	1	9	18	67
8	4.263	1.289	.41	6	4	9	22	60
9	4.126	1.626	.37	9	3	14	15	59
10	4.279	1.085	.42	4	3	11	25	57
11	4.232	1.199	.52	4	4	13	21	57
12	4.300	1.031	.48	4	2	13	24	58
13	4.342	1.078	.50	4	4	8	23	62
14	4.695	0.538	.39	1	2	5	11	81
15	4.532	0.775	.46	3	1	7	18	71
16	4.632	0.633	.40	2	2	6	14	77
17	4.400	0.966	/57	4	2	8	23	63
18	4.421	0.823	.33	2	4	8	24	63
19	4.305	1.054	.41	4	1	15	21	59
20	4.137	1.413	.50	8	2	13	25	53
21	4.479	0.944	.51	4	1	6	19	69
22	4.126	1.121	.42	4	5	14	30	47
23	4.726	0.588	.35	3	0	4	9	84
24	4.505	0.860	.43	3	2	8	16	71
25	4.479	1.060	.44	5	2	7	14	73

the seven identified criteria initially used to develop the items for the Resilience Scale were all characteristics of resilience. The small number of items per criterion might explain the failure of the items to load on more than one factor. The five variables (3, 4, 7, 9, 18) with a weak loading (< 0.3) then appear unrelated to the central factor of resilience.

The variance between the self-evaluation scores of the 12 interviewees and the teachers' evaluation scores is considerable, as seen in Table 3 and again in Table 4. Table 3 shows the great difference between the mean scores (4.27 and 3.44) as well as the distribution (SD 0.73 and 0.53), with the learners allocating to themselves a minimum point of 3 and a maximum of 5, in contrast to the teachers' minimum of 2 and a maximum of 4. Table 4 shows the rank order of the learners according to the Resilience Scale and the Learning Behaviour Scale. The rank order of all but one participant (Learner 186, ranked A on both) differed, and most sharply so for the eight participants in the top two ranges (Resilient and Undefined Status).

For purposes of comparison, Table 4 gives a synopsis of the results of the 12 participants who were interviewed in respect of their self-evaluation, the teachers' evaluation and their resilience status for two contexts: the school (S) and the general social system (G) covering the community, home and school environment, as concluded from the interviews. Resilience

Table 2 Factor analysis (one factor)

Resilience Scale: Factor analysis (alpha for all variables 0.8128)		
Variables	Rotated factor loading	Communality values
1	0.316	0.0999
2	0.334	0.1113
3	0.245	0.0599
4	0.282	0.0796
5	0.453	0.2056
6	0.500	0.2501
7	0.297	0.0882
8	0.334	0.1116
9	0.298	0.0886
10	0.368	0.1354
11	0.481	0.2314
12	0.440	0.1940
13	0.471	0.2220
14	0.376	0.1417
15	0.443	0.1963
16	0.397	0.1574
17	0.579	0.3347
18	0.270	0.0729
19	0.358	0.1280
20	0.439	0.1929
21	0.496	0.2464
22	0.358	0.1284
23	0.326	0.1065
24	0.357	0.1274
25	0.391	0.1531

Table 3 Comparison between point allocations of the 12 learners interviewed and curricular teachers

Variable	Mean	Standard deviation	Minimum point	Maximum point
Learners' self evaluation	4.2666667	0.7287016	3	5
Teachers' evaluation	3.4375000	0.5274833	2	4

denoted both resilient reintegration and the comfort or homeostatic zone, and non-resilience encompassed the survival and dysfunctional states.

According to the interview results (Table 4), the participants who reintegrated to resilience mostly experienced multiple risk factors and demonstrated independence, responsibility, assertiveness, sense of control, self-efficacy, planning and resourcefulness in their problem solving. Most participants knew what they needed and how to acquire it and viewed their problems as challenges that they had to overcome. Some participants who lived in dangerous communities functioned well in their communities by discovering ways to avoid danger and to enjoy and experience success in other activities in their communities. The non-resilient

Table 4 Synopsis of results of the 12 participants interviewed

Resilience status		Resilient				Undefined status				Non-resilient			
Learner No.		184	185	186	189	011	012	150	188	009	010	187	190
Resilience scale	Raw score (max 125)	125	125	125	125	112	112	111	111	86	86	82	78
	%	100	100	100	100	89	89	88	88	68	68	65	62
	Learner rank order	A	A	A	A	E	E	G	G	I	I	K	L
Learning behaviour scale	%	73	67	84	75	73	75	58	80	47	59	62	77
	Teacher rank order	F	H	A	D	F	D	K	B	L	J	I	C
Age		13	15	14	17	14	18	16	13	15	15	17	17
Grade		8	9	8	9	8	9	9	8	9	8	8	9
Gender: Boy=1/Girl=2		2	2	1	1	1	2	1	2	2	2	1	1
Area: Township=1/ Informal=2		2	1	1	1	1	1	1	1	1	1	2	1
Interviews context: General (G) School (S)	Resilient reintegration	G S	G S	S	G S				G	G S		G	
	Homeostatic/ Comfort			G		G S		G S	S		G S	S	
	Maladaptive/ Survival						G S						G S
	Dysfunctional												

learners displayed behavioural and academic problems. They were not assertive in their environment, they gave up easily, displayed an external locus of control, appeared to lack flexibility

and planning in their problem solving, expressed dependence on others for solutions, were unable to find alternative solutions and experienced little success in their lives. They were not successful in identifying and accessing the protective factors already available in their social system, such as persons who would give them support, and the possibility of forming a meaningful relationship. Some struggled to overcome chronic peer pressure and rejection, associated with learned helplessness and the development of a victim's mentality. They were unable to utilise the available protective factors in their environment.

Table 4 shows that the Resilience Scale by and large succeeded in identifying learners in the categories of resilient and undefined status, with the scorers of 100% all reflecting resilient integration in their interviews and learners who scored around the median showing themselves chiefly to be in the comfort zone. The Resilience Scale seemed to reflect resilient and undefined status most reliably in respect of the school context, but also fairly reliably in respect of the general context. The profile of Learner 012 obviously begs further investigation. The Resilience Scale results of the learners in the non-resilient category appeared not to correlate with their interview results since three of the participants were found to be resilient and only Learner 190, verily the participant with the lowest score, displayed maladaptive or survival behaviour.

Discussion

In trying to establish the resilience and non-resilience status of the participants in the study, the interaction between the internal personal factors and the stressors, risk factors and protective factors in the care-giving environment was thought to have implications for the behavioural outcomes of the individual in accordance with Kumpfer's model of resilience (1999:185). Variability in the nature of resilience could be attributed, *inter alia*, to variability in the risk factors that individuals were exposed to. Kaplan (1999:26) explains this fact by stating that the definition of resilience is tied to the nature of the risks, and these are variable. Most of the township learners showed themselves to be exposed to multiple stressors of severe intensity which were mostly interconnected, such as a single-parent family, unemployment of a primary caregiver, poverty and the death of significant others in their lives. The presence of multiple stressors of severe intensity should therefore feature in any interpretation of the findings.

The interview data seemed overall to reflect a remarkable degree of resilience in the learners from the township school. Would this finding be pointing to an interpretive factor in respect of the researchers or the data, or should it be taken to indeed reflect the dramatic scope of resilience to be found among young people contending with truly challenging circumstances of life in the townships? The content of the interviews, which limited space unfortunately prevents us from presenting, certainly called the thought-provoking statement by Johnson (1999: 226) to mind: 'Depending on where you live, who you are and what intrinsic and extrinsic opportunity structures are available to you, resilience becomes a personal negotiation through life.'

Although the Resilience Scale succeeded largely in identifying learners in township schools who belonged to the categories of resilient and undefined status, it is not yet fully reliable and much remains to be done in respect of the development of additional items and a sharper definition of cut-off scores. Furthermore, the initial five-factor analysis indicated a weak loading of most variables, which then called for a one-factor analysis. Although most items loaded fairly well on the one factor, it would be well to revisit the construct validity of the various items of the Resilience Scale and increase the number of items, in an effort to achieve a multi-factor instrument. Since the total score profile of the Resilience Scale presently

does not seem to support identification of non-resilient learners in township schools, this task is especially challenging. It may also prove meaningful to analyse item score profiles differentially, in addition to determining a cut-off score for non-resilience by collecting data from more related contexts.

Further development of the Learning Behaviour Scale should not be considered, since teachers proved singularly unable to identify resilient and non-resilient learners in their school. This finding in itself is alarming and obviously raises serious concerns regarding the training of educators, as well as the texture of their daily interactions with their learners.

In view of the issues of interpretation and feasibility, in-depth interviews for the identification of resilience would not appear recommendable despite the richness of the data obtained. In addition to being time-consuming, interviews appear to be context- and culture-specific, making it difficult to generalise from or to transfer any profile of responses to other contexts.

Conclusion

Stress, demands and challenges are part of life. Middle-adolescents in a township school are exposed to numerous and severe risk factors by virtue of their life-stage and the township environment. However, all individuals have the capacity for resilience. Environmental and individual protective factors play a prominent role in determining the type of resilience the individual will demonstrate. Building up resilience in learners could be effectively achieved by means of the development of resilience factors through empowerment by primary and secondary educators. Resilience education is mentioned by numerous researchers as an effective intervention to promote and nurture resilience (Boyd & Eckert, 2002:8; Brooks & Goldstein, 2001:xiii-xiv; Brown, D'Emidio-Caston & Benard, 2001:19-28; Joseph, 1994:xii-xiii; Krovetz, 1999:ix-x; Thomsen, 2002:vii-xiii; Winfield, 1994:37). Resilience education recognises the importance of providing skill programmes and encouraging the awareness and development of strengths and talents to augment personal weaknesses. To this end, the reliable identification, of those learners in need of the intervention, would certainly make a vital contribution.

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