Repressive Adaptation in Pediatric Cancer Patients:

A Review of a Possible Explanation for Unexpected Positivity

Alyssa Rosenzweig

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Parks-Sheiner

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Diagnosis and adjustment to cancer is a highly stressful experience. From hospital stays to painful physical symptoms and treatment to uncertainty about the future—just to name a few—dealing with cancer is not a particularly pleasant experience. From this it is obvious to see that cancer makes an individual more vulnerable to future psychological problems, especially in children and adolescents who are at critical developmental points in their lives.

But, despite this risk, the norm for pediatric cancer patients is to be at least as well-off psychosocially as their healthy peers (Phipps, 2007; Woodgate, 1999). In fact, it has been found that many children and adolescents with cancer are flourishing amidst their cancer experience (Phipps, 2007, p. 1055). Even people without such stressors can have difficulty flourishing, how is it that given such traumatic and unforeseen circumstances a person can respond with such positivity? This phenomenon is entirely un-intuitive to many and introduces the concept of chronic illness as a potential means to life improvement. Sklar further explores this topic (2007), finding five common "gifts" from chronic illness: stronger relationships, better appreciation of time and being, altruistic behavior, ability to balance emotions, and effective goal setting and achieving strategies.

For some in the pediatric cancer population, cancer is not simply a downer but rather a vehicle through which positive things can be discovered and learned. Pediatric populations with chronic and serious illnesses such as cancer have been observed to bias self-reports toward minimizing distress (Phipps & Steele, 2002, p. 34), be less likely to exhibit avoidant behavior, self-criticism, and distraction (Hampel, Rudolph, Stachow, Lab-Lentzsch, & Petermann, 2005, p. 146), and become more mature and stronger people, develop greater appreciation of life, get

closer to their family and friends, and reduce risk-taking behaviors (Woodgate, 1999, p. 85)—all indicators of improving well-being. Hampel et al. (2005) reason that illness-related stress leads to improved coping skills, which are applied in generally stressful situations and may therefore lead to better well-being than normal controls. It would be expected that these benefits are not conscious goals, but rather a side effect of the patient's coping and adaptation mechanisms, so it would be interesting to examine if intentional pursuit of these behaviors could result in similarly positive events in future research.

Since the goal is always to increase the positive components of life, discovering the origin and ways to cultivate these observed behaviors and benefits is essential. One predictor is adaptation style. Phipps (2007) has found adaptive-style to be a much stronger predictor of psychological outcomes (e.g. depression, posttraumatic stress disorder (PTSD), physiological symptoms, and health-related quality of life) than even health history. More specifically, repressive adaptive style is the type that most pediatric cancer patients exhibit. It is described in a categorical system developed by Weinberger (as cited in Phipps & Steele, 2002, p. 35) as an individual who falls below the median on anxiety levels and above the 75th percentile on defensiveness in self-report inventories.

With these characteristic levels of defensiveness and anxiety come many noteworthy behaviors and thoughts. It is natural to assume that repressors are likely to mute emotional distress because of they are so self-protective and relaxed. As a result, disheartening news may not have as great of an impact on a repressor as a non-repressor. Other studies have found that repressors have higher frustration tolerance, better social skills, and perform better in academic situations than their non-repressive peers (Phipps & Steele, 2002, p. 40). In a more general view, repressors think of themselves as well-adjusted, self-controlled and content, and organize behavior to defend this self-image (Phipps & Steele, 2002, p. 35).

Phipps (2007) suggests that repressive adaptation is one of the many pathways to resilience in pediatric cancer patients and posits that repressors are more likely to experience positive emotion—even for a transient amount of time or under threatening circumstances, as is the case for cancer patients. Though this research is just beginning and results are still in the preliminary stages, it suggests that repressive adaptation techniques can be viewed as a heuristic for understanding these previously described flourishing findings.

As with many findings, there are some holes and unanswered questions regarding this rational. There is currently a debate as to whether repressive adaptation style (or any adaptation style, for that matter) is a short-term or long-term adaptive technique. Is it stable over time? Or simply a temporary response, only triggered by severe events (e.g. cancer diagnosis)? Is it a personality trait? Can it be taught or learned? Within this temporal debate is also the question of whether repressive adaptation is beneficial or harmful to physical and psychological health (Woodgate, 1999, p. 82). For example, repressors may mute their somatic and mental symptoms, but they may also worry more about any small threat to their health through their defense of their positive self-image making it difficult to determine whether it's inherently a positive or negative mechanism. In time, hopefully these questions will be resolved.

On paper, repressors most certainly appear to be well-off; no quantitative measures have been able to determine that repressors are creating a false, illusory image of their health status; but many researchers still question the validity of these adaptive-style conclusions. Since repressive adaptation style has been measured through self-report and repressors are known to strive to maintain their positive self-image, a self-report will obviously only reveal these desired positive traits. As we have seen with other evaluations designed for adults, studying a pediatric population only magnifies this problematic paradox. Also, for the cancer population, what role might fatigue play in detecting psychosomatic symptoms? Could adolescents with cancer not report as many negative behaviors simply because they are too tired to experience or attenuate them? These difficulties do not make any findings regarding repressive adaptation-style completely useless, though, but rather highlight the need for extra caution interpreting data.

Given cancer's stressful nature, it seems to be an excellent candidate for creating circumstances likely to invoke repressive adaptation. Canning et al., one of the first groups to study adaptation style in pediatric cancer patients, found that there are more repressors in pediatric populations than in healthy control populations (as cited in Phipps & Steele, 2002, p. 35; Phipps, 2007). Phipps and Srivastava (as cited in Phipps & Steele, 2002, p. 35; Phipps, 2007) furthered this finding, counting two times as many repressors in the cancer population. Although it would be difficult to determine, it would be interesting to know if repressors represent a majority subset of the pediatric cancer population.

Phipps has observed in pediatric cancer repressors lower levels of depression, anxiety, posttraumatic stress symptoms, behavioral problems, general psychopathology, and higher reported health-related quality of life and self-esteem than healthy counterparts (Derevensky, Tsanos, & Handman, 1998, p. 52; Phipps & Steele, 2002). Children identified as repressors who were recently diagnosed with cancer also spent the fewest number of days in the hospital and had the lowest number of total hospital admissions (Phipps, 2007, p. 1061).

Most surprising to many familiar with the psychology field is the low levels of depression in the presence of cancer. The initial research from Canning's group noted that repressors had not only the lowest mean depressive levels in comparison to other adaptive-styles, but not one

had even mild depressive symptoms (as cited in Phipps & Steele, 2002, p. 35). Repressors with cancer must being doing something right for such good psychological results. Though studies have been limited, not just Canning et al. and Phipps have observed these surprisingly low levels of depression—at least ten other studies before 2000 also support this conclusion, though none actually focused on this result (as cited in Phipps, 2007, p. 1056).

With these exciting findings of positivity in the face of the stresses of cancer come many questions and suggestions for future research. For example, does the duration of the illness change results (e.g. even higher proportion of population becomes repressors)? Other chronic illness populations have been observed to exhibit repressive-adaptation (Phipps & Steele, 2002), so can the research be extended to help healthy children and adolescents become more resilient or increase their well-being? Or, more broadly, used for the population as whole; positive psychologists are always looking for new indicators and techniques of improving subjective well-being.

To counter the measurement problems, what about using technology-based instruments and interventions? For example, designing a study using and evaluating an online journal. Or perhaps assessing the subject's interaction with a specially designed game to test the response to stressful circumstances (e.g. a monster attacking), pursuit of a goal, coping strategies (e.g. when the subject loses), ease of frustration with the task or playing the game, etc. It may be more effective to use of a fun, interactive medium that the pediatric population is familiar with to mask the measures and avoid the self-report errors suspected in repressors. The idea would be to conceal the entire concept of an evaluation in the form of a game or toy that seems unrelated to any other normal measurement technique instead of using the traditional cover story (if any) as a

mask in a self-report questionnaire. Of course, such measures are extremely difficult to create and collect valid conclusions from, but it would be an interesting concept.

Though it may be surprising to some, a pediatric patient presented with the stress of cancer can adapt to this threat, and not become just comparably well-off psychosocially as healthy controls, but go beyond this and flourish. A variety of behaviors and skills have been found to develop amidst this chronic stress, many leading to positive change. One possible explanation has been found in adaptation style, a measure posited to be a good predictor of psychosocial and physical health—repressive adaptation-style being the type most observed in the pediatric cancer population. With the characteristically low levels of anxiety and high levels of defensiveness a number of beneficial traits and skills have emerged in which the cancer population out-performs their healthy counterparts. There still exist a number of limitations to this research, but the current implications, and anticipated results of future research topics and measurement methods inspired by these current findings are quite promising for potentially many populations.

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