Parenting Style as a Predictor of Internal and External Behavioural Symptoms in Children: the child’s perspective

Ellen Hedstrom
The aim of this study was to examine three distinct parenting styles and their effect on children’s behaviour patterns, as perceived by the child. The parenting styles, based on Baumrind’s typologies of authoritative, authoritarian and permissive parenting, were measured as well as the children’s self-rated internal and external symptoms. Results indicated that there was a relationship between authoritarian parenting and all aspects of internal symptoms (depression, loneliness and self-esteem) as well as delinquency and aggression (external symptoms). Gender had an effect on depression and loneliness with females displaying higher levels. Permissive parenting was the largest contributor to drug use and an effect of age on drug use was also found. In conclusion, the results from this study show that authoritative parenting has a detrimental effect on a host of mental health issues and behavioural problems. However, authoritative parenting was shown to have the most positive outcome across the study. Implications for positive parenting style interventions are discussed. In addition, further studies examining parent-child relations from the child’s perspective are suggested.
The concept of parenting style affecting behavioural outcome is not new. As far back as philosophers like Plato and Aristotle there have been theories on how adults shape children’s behaviour, and in 1689 John Locke suggested that, “the well educating of their children is so much the duty and concern of parents, and the welfare and prosperity of the nation so much depends on it”, (Locke, 1689). Decades of research into the parent-child relationship has yielded many discussions on the matter but what is clear is that the behaviour of the parent is very much interlinked with the behaviour and emotional well-being of the child. Yet questions still remain on what type of parenting might promote the best outcome. In his presidential address on parent-adolescent relationships, Laurence Steinberg asked the question, “are some types of parenting better for the adolescent than others?” (Steinberg, 2001, p. 2). Steinberg concluded that with copious amount of research into the subject, there was enough evidence to point to authoritative style parenting as the epitomic parenting style. So the question remains as to why, with all the research into family dynamics that exists, there is still such a high degree of mental health issues and behavioural problems with children? A Swedish study showed that one in ten children suffer from mental health issues and one in five from psychosomatic symptoms which shows that there is still a need for a better understanding of the family dynamics that can enhance or impair healthy development of children (Barnombudsmannen, 2016). This study aims to further examine the relationship between parental styles and behavioural outcome from the child’s perspective, as well as look at the implications for finding best parenting practices to enhance a healthy trajectory for children.

Parenting style can be defined as the emotional surroundings in which a child is raised (Darling & Steinberg, 1993). In 1966 Baumrind published a paper entitled “Effects of Authoritative Parental Control on Child Behaviour”. In it she presented three prototypes of parenting styles which she classified as Permissive, Authoritarian and Authoritative, and which she believed would be instrumental in causing certain behavioural outcomes in children. These prototypes have become the foundation of many studies examining the relationship between parenting and child behaviour and is the basis for the questions set forward in this study. The three original prototypes proposed by Baumrind (1966) contained a set of qualities relating to each parenting style with a predicted behavioural outcome attached to it. Permissive parenting was seen as the parent, “behaving in a non-punitive, acceptant and affirmative manner towards the child’s impulses, desires and actions.” (p. 889). In a later study she further explained the permissive typology as allowing the child to self-regulate their behaviour (Baumrind, 1968). Other studies have expounded on these characteristics using the terms ‘knowledge’ and ‘monitoring’ to describe a parent who actively monitors their child’s activities and social habits, (Stattin & Kerr, 2000). This indicates that a parent who lacks knowledge of their child’s activities would be more likely to elicit deviant behaviour such as drug taking. In a study on parental monitoring, delinquency and personality, Eaton, Krueger, Johnson, McGue and Lacono (2009) suggested links between parental knowledge (lack of) and delinquency. Alizadeh, Talib, Abdullah and Mansor, 2011 found a clear correlation between the permissive levels of mothers and externalizing symptoms
in children. For the purpose of this study, the permissive parenting variable has been based on questions reflecting parent monitoring and knowledge (Stattin & Kerr, 2000) which reflects the characteristics of Baumrind’s original prototype whereby the permissive parent allows the child to self-regulate their behaviour with little parental input (Baumrind, 1966).

In contrast, the authoritarian parent tries to, “shape and control behaviour…usually to a set of absolute standards.” (Baumrind, 1966, p. 890). The child’s autonomy is restricted and order and structure are valued. This idea of behaviour control has been developed and many studies are looking at forms of psychological control as a form of authoritarian parenting style. According to Soenens, Luyckx, Vansteenkiste, Durlez and Goossens (2008), a psychologically controlling parent has manipulative and intrusive characteristics which is reflective of Baumrind’s authoritarian typology description. Baumrind echoed this in a study from 2010 where authoritarian parents were classed as using coercive discipline of which psychological control was one of the measures (Baumrind, Larzeleres, & Owens, 2010). In 2012 Baumrind further explained the characteristics of authoritarian parenting using the term coercive power assertion which was deemed to have a negative effect on children, coercive being both arbitrary and domineering amongst others. Studies looking at the correlations between psychological control in parents and internalized behavioural symptoms have found significant results. A study by Barber and Harmon (2002) found significant links between psychological control and internalized symptoms such as depression. Alizadeh et al., (2011) also found significant links between authoritarian parenting and internalized symptoms such as anxiety, depression and somatic problems.

Authoritative parenting is traditionally seen as the exemplary parenting style or prototype (Baumrind, 1966) that yields the most positive outcome in a child. The parent “encourages verbal give and take” (p.891) and the child is led in a firm but warm manner. In his studies on parenting styles (which were based on Baumrind’s typologies) Steinberg (2001) concluded that authoritative parents are “warm and involved, but firm and consistent” (p.7). He also found that children raised in authoritative families fared better on almost every aspect of mental health examined. In addition, studies on adolescents showed less depression and higher self-esteem as well as a lower likelihood of engaging in antisocial behaviour (including substance use and delinquency) (Steinberg, 2001). In 2012 Baumrind wrote an article differentiating between authoritative and authoritarian parenting styles, as power assertion is the basis for both types of parenting. However, whereas authoritarian is coercive, authoritative is seen as confrontative which is classified as reasoning and outcome orientated. For the purpose of this study, authoritative parenting has been defined as an accepting and supportive parenting style, definitions used in a study by Kerr, Stattin and Özdemir (2012) where measures of warmth and acceptance were analysed when examining parental style and adolescent adjustment.

Baumrind (1967) summarised parenting styles and patterns of behaviour as follows; pattern I parents were nurturing and communicative (authoritative style) but also with elements of control and demand, which would promote a self-reliant, self-controlled
and self-assertive child, as opposed to pattern II (authoritarian) which would produce “dysphoric and disaffiliative” children and pattern III (permissive) which would produce dependence and low self-control in a child (p. 129). It is clear from Baumrind’s typologies, as well as other studies, that these three distinct ways of parenting can yield very different outcomes which is especially significant when it comes to negative behaviours, whether they be internal or external. Internal symptoms can be defined as depression, anxiety, somatic complaints or regressive behaviour (Yahav, 2006; Phares, 2003). Alizadeh et al., (2011) also included questions on withdrawal and thought problems in their study on parental style and child behaviour (internal aspects). External behaviour includes aggression or delinquent behaviour (Yahav, 2006; Phares, 2003; Racz & McMahon, 2011). Disorders such as oppositional defiance disorder (angry/irritable mood, argumentative/defiant behaviour, and vindictiveness), and conduct disorder (behaviour that violates the rights of others and societal norms and includes callous unemotional traits), (American Psychiatric Association, 2013) fall into the category of external symptoms. External symptoms can also include smoking, drug taking and drinking (Patock-Peckham & Morgan-Lopez, 2006). Research shows that there are clear links between certain parenting styles and behavioural outcomes as set out in Baumrind’s parental typologies (1966). In a study by Darling, McCartney and Taylor (2006) they found that authoritarian parenting style and depression in children were significantly linked.

There is also a question of whether age or gender has any bearing on behavioural symptoms in children. While these variables are not specifically related to Baumrind’s parenting styles, they are factors that may interact with the outcome of analysis and need therefore be included in the study. In addition, any effect of gender or age on behaviour will have implications on the design of intervention programs. Baumrind did bring up the fact that gender may be a factor in that there may have been a gender effect on the relationship between a child rearing variable and behavioural outcome, but that this couldn’t be ascertained due to the lack of current research (1966). In 2006 Huh, Tristan, Wade and Stice discussed the fact that conduct problems and substance abuse are growing amongst adolescent girls and looked at deficits in parental control and support as an indicator of problem behaviour from the perspective of the social mold theory and reciprocity in female subjects, with results showing a positive correlation between lack of parent control/support and externalized behaviour and substance misuse. A Swedish study showed that both age and gender were factors in children’s self-rating of mental health problems and their frequency; in the age category 16-18, 19% females versus 8% males (contrasting figures in age group 10-12 years is 8% girls and 6% boys) reported that they had experienced psychological problems (Barnombudsmannen, 2016). In the same study, questions on alcohol and drugs showed that in Swedish grade 9, 3% of girls versus 1% of boys had used drugs in the last 30 days (figures from a 2015 study) which echoes the results found by Huh et al., (2006). This clearly indicates that age and gender can have an effect when measuring internal and external symptoms in children.
While it is clear that much research has been done on styles of parenting based on the conceptualization of parenting typologies as set out by Baumrind, there is still a need for further research to examine the parent-adolescent relationship from different perspectives. While many studies look at parenting style and behavioural outcome from a parent’s perspective or other sources (teachers, official organisations and so on), studies that look at the link between the child’s perspective on how they are treated by their parent can be useful in terms of providing an intervention that fits with the need of the child. This sentiment is echoed in a study conducted by Yahav (2006) where the relationship between children’s perception of parenting style and internal and external behaviour was studied. In his conclusion, Yahav addressed the fact that whether the symptomatic child’s perception of what is actually occurring in the family is real or not, the perception must still be addressed and relevant interventions be implemented to allow the child to feel loved and valued, (Yahav, 2006). A study by Barry, Frick and Grafeman (2008) compared parent and adolescent reports on a number of external and internal features. They found that there were in fact a higher number of correlations between the child’s rating of parental style and behavioural outcome compared to the parents rating, which again shows that it is not only the parenting style as rated by the parent that needs to be taken into account when it comes to interventions, but also the perception of the child; if not more so. This study aims to examine parental style from the perspective of the child and examine links to behavioural outcomes based on Baumrind’s previous research as well as other relevant studies. Results from the study can be applied to intervention programs in terms of finding the right ‘fit’ of intervention according to the child’s perceived need, in order to encourage a positive developmental trajectory in children.

In order to examine the three parenting styles as described by Baumrind, questionnaires reflecting the properties of each parenting style were used to measure the subject’s perspective of parenting. The variable defined as authoritative parenting was based on a study by Barber, Maughn and Olsen (2005). They used the term parental support which included physical affection and parental acceptance while still adhering to the basic components of Baumrind’s typology. Authoritarian parenting was bases on a study from 2012 (Barber, Xia, Olsen, McNeely, & Bose) where psychological control was conceptualized. Manipulation and coercion were two aspects of psychological control that was examined, and questions on being compared to others (friends or siblings) reflected aspects of manipulative forms of love withdrawal. Permissive parenting was based on a scale developed by Stattin and Kerr (2000) which they called parental control which reflected parents restricting the amount of freedom the child had. Combined with six variables measuring behavioural outcome of internal and external behaviour, four hypotheses were proposed.

- Authoritarian parenting is the greatest predictor of children’s self-rated internal symptoms.
- Permissive parenting is the greatest predictor of children’s self-rated external behavioural symptoms.
• It is also expected that girls will score higher on items relating to internal symptoms while external symptoms will increase with age.
• Overall Authoritative parenting is predicted to have a positive impact across all six behavioural variables.

Implications for intervention programs based on a positive (authoritative) parenting style as well as gender specific interventions will be addressed in the discussion section of this study.

Method

Participants

The subjects were part of a longitudinal study that took place in Kristianstad, Sweden over three years (2013, 2014, 2015). 1 500 students attending Swedish grades 7-9 and the first year of gymnasium took part in the study. The age range was 13-18. For the purpose of this study the UNICEF definition of a child as someone under 18 has been used and the subjects will be referred to as children throughout the study (retrieved from: http://www.unicef.org/crc/files/Guiding_Principles.pdf). The study was designed to examine links between internal and external symptoms, parental style, parent child relations and sleeping and eating habits. Schools were chosen in accordance with Kristianstad’s municipality department of children and education, and five schools ended up participating in the study.

A total of $N=1274$ questionnaires were available to analyse as part of the second study wave (2014). Out of the 1274 questionnaires, 10 subjects had not answered which gender they belonged to. In light of current awareness of gender amongst young people, future studies may wish to include an answer that allows students to write other. As gender will be a factor in the statistical computations and it is not possible to create mean imputation for this item, these 10 subjects were removed from the study leaving $N=1264$ subjects available for statistical analyse.

Procedure

Written instructions were given to students and parents/carers of those who had not yet turned 15 prior to the study taking place. All children who were present on the day that the questionnaires were distributed were eligible to take part. The questionnaires were handed out during school lessons with a researcher present who verbally briefed the students who were willing to answer the surveys (and had parental agreement if required). The questionnaires were answered during the lesson and then handed back to the researcher. The same questionnaires were given autumn 2013 and 2014 with some additional questions added during the 2014 wave. For the purpose of this study only the students taking part in wave 2 (2014) were used. In addition to the questions asked during the first wave (2013) the questionnaire in the second wave (2014) also included a version
of the Difficulties in Emotions Regulation Scale (DERS) (Swedish version) which measures emotional dysregulation. In the letter to the parent/carer, a slip was included which had to be returned in case consent was NOT given (passive consent). The subjects themselves consented by completing the questionnaire (active consent). No remuneration was offered.

**Measures**

Three independent variables each representing one style of parenting and six dependent variables each representing a behavioural symptom, with three variables representing internal symptoms and three external symptoms, were used. Subjects were asked to bear a specific parent in mind (or both parents simultaneously) when answering the questions. It was not clear to the subjects that they were answering on a specific parenting style and questions on authoritative and authoritarian parenting were part of the same section in the questionnaire. Subjects were thus able to answer question on all three parenting styles rather than selecting one style that they most applicable. In addition, questions on age, gender, school year and family demographics were available. Questions took the form of likert scales with answers ranging from 1-4, 1-5 or 1-6 with some of the questions being reversed. The majority of the questionnaires used were standard psychometric tests that have been used previously which good reliability.

*Authoritative parenting (Parental Support/Acceptance).* This was measured using a ten item scale based on studies by Barber et al. (2005). The items reflect the way in which the subject experiences their parent’s supportive, authoritative style of parenting with questions such as, my parents, ‘smile at me a lot’, ‘encourages me when I’m sad’ and ‘are easy to talk to’. Answers were on a scale of 1-4 ranging from *not at all true (1)* to *true (4)*. Cronbach’s alpha was in this study was .924.

*Authoritarian parenting (Psychological Control/Disrespect).* This was measured using an eight item scale based on studies by Barber et al. (2012). During a factor analysis one question was dropped and the analysis was based on seven item. The items reflect the way in which the subject experiences their parent’s controlling or authoritarian style of parenting with questions such as, my parents, ‘put me down, ‘don’t respect me’ and ‘expect a lot of me. Answers were on a scale of 1-4 ranging from *not at all true (1)* to *true (4)*. Cronbach’s alpha in this study was .754.

*Permissive parenting (parental control).* This was measured with five items that measured the child’s perspective of their relationship with their parents. Questions asked were ‘must you have your parent’s permission before going out on a weekday’ or ‘if you are going out a Saturday night, do you have to tell your parents were you’re going and who you are meeting’. The questions were based on previous studies by Stattin and Kerr (2000) that reflect parents imposing restriction on freedom, where Cronbach’s alpha was .82. High scores reflect lack of parental restriction indicating lack of monitoring. Answers were on a scale of 1-5 ranging from *yes always (1)* to *no never (5)*. Cronbach’s alpha in this study was .81.
Depressive symptoms was measured using the Centre for Epidemiological Studies Depression scale for children (CES-DC) (Weissman, Orvaschel, Padian, 1980). This was a 20 item inventory that specifically looks at the child’s mood over the past week. Questions such as in the past week I have felt ‘like crying’, felt down and unhappy’, and ‘felt that other people don’t like me’ were included. Four questions were reversed. Internal consistencies of the total score vary between Cronbach’s alpha = 0.77 and alpha = 0.91, depending on the study (Barkman, Erhart, & Schulte-Markwort, 2008). Answers were on a scale of 1-4 ranging from not at all (1) to often (4). Cronbach’s alpha in this study was .928.

Loneliness (Revised UCLA Loneliness scale) (Russell, Peplau & Cutrona, 1980). This was an eight item scale measuring loneliness and isolation with seven items being included in the questionnaire. Results indicated that the measure was highly reliable, both in terms of internal consistency (coefficient a ranging from .89 to .94) and test-retest reliability over a 1-year period (r = .73). Convergent validity for the scale was indicated by significant correlations with other measures of loneliness. (Russell, 1996). Questions included were ‘I feel left out’ and ‘I feel separated from others’. Answers were on a scale of 1-4 ranging from never (1) to often (4). Cronbach’s alpha in this study was .897.

Self-esteem (Rosenberg Self-esteem scale) (Rosenberg, 1965). This was a 10 item scale measuring self-esteem with questions such as ‘I feel worthless at times’ and ‘I feel like I don’t have a lot to be proud of’. The scale was 1-5 with answers ranging from agree (1) to disagree (5) with five questions being reversed. Cronbach’s alpha in this study was .824.

Problem behaviour frequency scale. (Jessor & Jessor, 1977). This scale measured three aspects of external behavioural problems; drugs (6 items), delinquency (6 items) and aggression (7 items) using the Problem Behaviour Frequency Scale (Farrell et al., 2000). Questions asked about behaviour over the last 30 days and included ‘have you been drunk’, ‘have you damaged any property’, and ‘have you pushed or shoved another child’. The scale was 1-6 with answers ranging from never (1) to 20 times or more (6). Cronbach’s alpha in this study was .860, .804 and .752 respectively.

Statistical analysis

IBM SPSS Statistics 23 was used for all statistical analyses. Cronbach’s alpha was calculated for all nine scales. A confirmative factor analysis was conducted using the principal components method to examine the three proposed predictor variables (authoritative, authoritarian and permissive parenting). Using extraction method with an eigenvalues of 1 and a varimax rotation, 23 items were entered into the analysis. 22 items fell across three factors according to the three questionnaires that they were derived from. Consequently, ten items were available for analysis for authoritative parenting, seven items for authoritarian parenting and five items for permissive parenting. The factor analysis gave a KMO score of .93, Barlett’s test of sphericity was p < .001 and the cumulative percentage of variance for three factors was 51.88%. A decision was made to retain outliers due to the nature of the scales on the variables. It was only possible to answer a range of 1-4, 5 or 6 and therefore answers scoring very high or low would still
have merit in reflecting the subject’s behaviour and be a legitimate part of the data set (Tabachnick & Fidell, 2001). It was expected that some of the data would be heavily skewed due to the demographics of the subjects (rural community in Sweden). Tests for normality were conducted and none of the data passed (Kolmogorov-Smirnov \( p < .001 \) on all cases) although the majority of the variables showed a normal range of skewness of \(+/-2\) (George & Mallery, 2010). The largest skewness found were on the variables for external behaviour, with delinquency showing a skewness of 6.92 (SE = .07) and kurtosis of 68.58 (SE = .15) but due to the large sample number (1000+) large skewness values are not as important as size and will often not deviate enough from normality to make a difference to the results (Tabachnick & Fidell, 2001). The question must also be asked how applicable the data is to the general population. A simple test developed by Cramer (1997) was used on the most skewed variable (delinquency) which showed that \( ZG1 > 2 \) (where \( G1 \) was the variable delinquency). This showed the possibility that the population data is also skewed. This would make sense in terms of the likelihood of deviant behaviour having a normal curve being small. All data was initially transformed into z scores to achieve better normality but this did not make a significant difference so the unstandardized data was used.

There was a significant amount of data missing across all nine variables. 38 subjects were removed where no questions on parental style had been answered and 36 subjects were removed where no questions on behavioural outcome had been answered. All remaining subjects \( (N = 1190) \) had answered questions on at least one parental style and one behavioural outcome. Missing values calculation showed 17.5\% of data missing from the variable measuring depression (the largest amount missing). Missing data was considered to be missing not at random (MNAR) and dealt with by selecting exclude cases pairwise when conducting analyses (Pallant, 2005).

Any reversed items were recoded. Exploratory and missing values analyses were conducted as well as descriptive statistics for all variables. Pearson \( r \) correlations were completed on the three predictor variables to ensure a significant difference between them. In addition, bivariate and partial regressions were conducted on all nine variables. For the partial correlations each dependent variable was correlated with each of the six outcome variables while controlling for the other two predictor variables. Correlation strengths were based on Cohen (1988). A stepwise regression was conducted to find out how much each predictor variable contributed to each outcome variable. Bivariate correlations looked at the effects of gender and age on the outcome variables with an independent samples t-test to examine gender further.

**Results**

A total of nine variables were part of the analysis, this was comprised of three independent or predictor variables which were the three parenting styles (Authoritative, Authoritarian, Permissive) and six dependent or outcome variables which were the six behavioural symptoms which were grouped with three variables for internal symptoms (Depression, Loneliness, Self-Esteem) and three variables for external symptoms (Drugs, Delinquency
and Aggression). Table 1 shows the mean and standard deviation of all variables as well as skewness. Authoritarian and Permissive parenting score similar means (based on a scale of 1-4 where four reflects the absolute parenting style). Authoritarian parenting on the other hand scores lower meaning that fewer subjects rate their parents as authoritarian. Out of all outcome variables, self-esteem has the highest mean, meaning that more subjects rated themselves suffering from low self-esteem than any other symptom (answer range was 1-5). Mean age is at the higher end of the age range of students who partook in the study (13-18) and there was a fairly even split of male and female subjects.

**Table 1. Descriptive Statistics**

<table>
<thead>
<tr>
<th>Variables</th>
<th>N*</th>
<th>M</th>
<th>SD</th>
<th>Skewness</th>
<th>SES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authoritative</td>
<td>1056</td>
<td>3.43</td>
<td>.57</td>
<td>-1.31</td>
<td>.08</td>
</tr>
<tr>
<td>Authoritarian</td>
<td>1098</td>
<td>1.59</td>
<td>.49</td>
<td>1.14</td>
<td>.07</td>
</tr>
<tr>
<td>Permissive</td>
<td>1128</td>
<td>3.05</td>
<td>.94</td>
<td>-.16</td>
<td>.07</td>
</tr>
<tr>
<td>Depression</td>
<td>982</td>
<td>1.76</td>
<td>.57</td>
<td>.98</td>
<td>.08</td>
</tr>
<tr>
<td>Loneliness</td>
<td>1141</td>
<td>1.57</td>
<td>.69</td>
<td>1.36</td>
<td>.07</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>1059</td>
<td>3.12</td>
<td>.34</td>
<td>.48</td>
<td>.08</td>
</tr>
<tr>
<td>Drugs</td>
<td>1075</td>
<td>1.47</td>
<td>.73</td>
<td>2.29</td>
<td>.08</td>
</tr>
<tr>
<td>Delinquency</td>
<td>1082</td>
<td>1.15</td>
<td>.37</td>
<td>6.92</td>
<td>.07</td>
</tr>
<tr>
<td>Aggression</td>
<td>1076</td>
<td>1.27</td>
<td>.48</td>
<td>3.50</td>
<td>.08</td>
</tr>
<tr>
<td>Age</td>
<td>1190</td>
<td>16.17</td>
<td>1.17</td>
<td>-.06</td>
<td>.07</td>
</tr>
<tr>
<td>Male</td>
<td>528</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>622</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*N vary due to missing data

The skewness of each variable shows the range of very small skewness on age and self-esteem of < .5 to largely skewed data on drugs, delinquency and aggression.

**Correlations**

Correlations were conducted between the predictor and outcome variables to ascertain relationships and their directions. Due to the large number of variable combinations (18) a Bonferroni correction was made and an alpha level of *p* < .003 was set. This was in order to reduce the chance of a type I error. Authoritarian parenting style positively correlated to all three internal variables (depression, loneliness and self-esteem). It was also positively correlated to delinquency and aggression (at *p* < .003). Permissive parenting was only positively correlated with drugs of the predicted outcome variables. Authoritative parenting negatively correlated to all six variables, significantly (*p* < .003) on depression, loneliness, delinquency and aggression.
Table 2. Bivariate correlations

<table>
<thead>
<tr>
<th></th>
<th>Depression</th>
<th>Loneliness</th>
<th>Self-esteem</th>
<th>Drugs</th>
<th>Delinquency</th>
<th>Aggression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authoritarian</td>
<td>$r = .43^{***}$</td>
<td>$r = .36^{***}$</td>
<td>$r = .13^{***}$</td>
<td>$r = .10^{**}$</td>
<td>$r = .14^{***}$</td>
<td>$r = .15^{***}$</td>
</tr>
<tr>
<td>Permissive</td>
<td>$r = -.19^{***}$</td>
<td>$r = -.12^{***}$</td>
<td>$r = .04_{ns}$</td>
<td>$r = .13^{***}$</td>
<td>$r = -.01_{ns}$</td>
<td>$r = -.03_{ns}$</td>
</tr>
<tr>
<td>Authoritative</td>
<td>$r = -.43^{***}$</td>
<td>$r = -.40^{***}$</td>
<td>$r = -.09^{**}$</td>
<td>$r = -.09^{**}$</td>
<td>$r = -.13^{***}$</td>
<td>$r = -.15^{***}$</td>
</tr>
</tbody>
</table>

Note: $ns = \text{non-significant, } ^* p < .05, \quad ^{**} p < .01 \quad ^{***} p < .001$

Regression analyses

In order to clarify the contribution of each parenting style to each outcome variable, a stepwise regression was conducted where all three predictor variables were entered at step one in random order. Again alpha level was set at $p < .003$. Stepwise regression was deemed the most suitable in light of the correlations not reflecting the hypothesised results (see table 2).

Table three shows authoritarian parenting to be the largest predictor of depression, $F(1, 885) = 196, p < .001$. Authoritative parenting entered into the next step with a significant negative contribution $F(2, 884) = 135, p < .001$ and finally permissive $F(3, 883) = 102, p < .001$ which was also negatively correlated. Authoritarian parenting was the single predictor of increased depression.

Table 3. Stepwise regression for depression

<table>
<thead>
<tr>
<th></th>
<th>$b$</th>
<th>$SE b$</th>
<th>$\beta$</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td>.18</td>
</tr>
<tr>
<td>Authoritarian</td>
<td>.50</td>
<td>.04</td>
<td>.43^{***}</td>
<td></td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td>.23</td>
</tr>
<tr>
<td>Authoritarian</td>
<td>.32</td>
<td>.04</td>
<td>.28^{***}</td>
<td></td>
</tr>
<tr>
<td>Authoritative</td>
<td>-.28</td>
<td>.04</td>
<td>-.27^{***}</td>
<td></td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td></td>
<td></td>
<td></td>
<td>.26</td>
</tr>
<tr>
<td>Authoritarian</td>
<td>.23</td>
<td>.04</td>
<td>.20^{***}</td>
<td></td>
</tr>
<tr>
<td>Authoritative</td>
<td>-.25</td>
<td>.04</td>
<td>-.24^{***}</td>
<td></td>
</tr>
<tr>
<td>Permissive</td>
<td>-.09</td>
<td>.02</td>
<td>-.15^{***}</td>
<td></td>
</tr>
</tbody>
</table>

Note. $R^2 = .18, F = 196$ for step 1: $\Delta R^2 = .05, \Delta F = 61$ for step 2: $\Delta R^2 = .03, \Delta F = 27$ for step 3. $p < .001$
While authoritative parenting entered into the first step of table four, loneliness, with an $F$ value of $F(1, 1003) = 187, p < .001$, this result indicated that as authoritative parenting increases, loneliness decreases. The only parenting style that predicted an increase in loneliness was authoritarian parenting $F(2, 1002) = 116, p < .001$.

**Table 4. Stepwise regression for loneliness**

<table>
<thead>
<tr>
<th>Step</th>
<th>$b$</th>
<th>$SE$</th>
<th>$\beta$</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>.16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authoritative</td>
<td>-.49</td>
<td>.04</td>
<td>-.40***</td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td>.18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authoritative</td>
<td>-.35</td>
<td>.04</td>
<td>-.28***</td>
<td></td>
</tr>
<tr>
<td>Authoritarian</td>
<td>.30</td>
<td>.05</td>
<td>.21***</td>
<td></td>
</tr>
</tbody>
</table>

Note. $R^2 = .16, F = 187$ for step 1: $\Delta R^2 = .03, \Delta F = 38$ for step 2. $p < .001$

Table five shows that Authoritarian parenting was the only predictor for low self-esteem $F(1, 952) = 16, p < .001$, showing a positive correlation.

**Table 5. Stepwise regression for self-esteem**

<table>
<thead>
<tr>
<th>Step</th>
<th>$b$</th>
<th>$SE$</th>
<th>$\beta$</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>.02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authoritarian</td>
<td>.09</td>
<td>.02</td>
<td>.13***</td>
<td></td>
</tr>
</tbody>
</table>

Note. $R^2 = .02, F = 16$ for step 1. $p < .001$

When looking at the external outcome variables, Permissive parenting was the largest contributor for drug use, $F(1, 957) = 17, p < .001$ although Authoritarian parenting also showed a positive correlation with drug use $F(2, 956) = 16, p < .001$.

**Table 6. Stepwise regression for drug**

<table>
<thead>
<tr>
<th>Step</th>
<th>$b$</th>
<th>$SE$</th>
<th>$\beta$</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>.02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permissive</td>
<td>.10</td>
<td>.03</td>
<td>.13***</td>
<td></td>
</tr>
<tr>
<td>Step2</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permissive</td>
<td>.12</td>
<td>.03</td>
<td>.15***</td>
<td></td>
</tr>
<tr>
<td>Authoritarian</td>
<td>.18</td>
<td>.05</td>
<td>.12***</td>
<td></td>
</tr>
</tbody>
</table>

Note. $R^2 = .02$ for step 1, $F = 17. \Delta R^2 = .01, \Delta F = 14. p < .001$. 

13
For delinquency and aggression, only Authoritarian parenting was shown to positively correlate with the outcome variable, with delinquency $F(1, 968) = 20$ and aggression $F(1, 960) = 22$. Permissive parenting which was hypothesised to make a significant contribution to external behaviour did not enter the model.

**Table 7. Stepwise regression for delinquency (a) and aggression (b)**

<table>
<thead>
<tr>
<th>Step 1</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authoritarian</td>
<td>.11</td>
<td>.02</td>
<td>.14***</td>
<td>.02</td>
</tr>
<tr>
<td>b)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authoritarian</td>
<td>.15</td>
<td>.03</td>
<td>.15***</td>
<td>.02</td>
</tr>
</tbody>
</table>

Note. $R^2 = .02, F = 20$ for step 1 (a), $p < .001$. $R^2 = .02, F = 22$ for step 1 (b), $p < .001$.

**Partial Correlations**

In order to find the unique variance between the dependent variables that were shown to have a relationship in the regression analysis, while eliminating the variance from the other two variables, partial correlations were conducted.

Partial correlations between authoritarian parenting and depression was $r = .23, p < .001$. The bivariate correlations between these two variables showed $r = .43, p < .001$ (see table one). This indicates that the relationship between authoritarian parenting and depression is marginally influenced by the other two parenting styles. Authoritative and Permissive parenting showed a similar influence on the relationship between authoritarian parenting and loneliness, with bivariate correlations $r = .36, p < .001$ and partial correlations $r = .18, p < .001$. Interestingly partial correlations showed no significance between self-esteem and authoritarian parenting at the $p < .003$ level, (authoritarian parenting positively correlated with self-esteem at $r = .09, p < .005$).

Partial correlations for Permissive parenting showed a negative relation ($r = -.17, p < .001$) for depression but a positive correlation with drugs ($r = .15, p < .001$), the difference from the bivariate correlations were marginal for drugs ($r = .13$) so authoritative and authoritarian parenting have very little influence, even when controlled for.

Partial correlations showed that Authoritative parenting negatively correlated on every single outcome variable and significantly negatively correlated with depression ($r = -.27$) and loneliness ($r = -.26$) showing that as authoritative parenting increases, depression and loneliness decreases.

**Age and gender**

Bivariate correlations showed that age positively correlated with drugs ($r = .23, p < .001$) indicating that as age increases, so does drug and alcohol use. The bivariate correlations also showed that gender had an effect on depression and loneliness. Independent samples t tests showed that girls and boys differed significantly in their mean depression score ($t = -11.54, df = 978.29, p < .001$) with girls ($M = 1.94, SD = .58$) scoring .39 points higher.
than boys ($M = 1.55$, $SD = .48$). Cohen’s $d = .73$ which is a moderate to large effect (Cohen, 1988). Levene's test was significant so equal variance not assumed was used. For loneliness again girls scored a higher mean with ($t = 6.25$, $df = 1138$, $p < .001$) with girls ($M = 1.68$, $SD = .74$) scoring .25 points higher than boys ($M = 1.43$, $SD = .60$). Cohen’s $d = .37$ which is a small to moderate effect (Cohen, 1977). Levene's test was significant so equal variance not assumed was used. These results indicate that gender has an effect on internal symptoms with girls presenting more issues with depression and loneliness and age being related to external factors with older children being more likely to indulge in substance use. Cohen’s $d$ showed that the significance was higher for depression. Due to the skewness of the variables measuring external behaviour, a Spearman correlation was conducted for age and gender with drugs, delinquency and aggression. The results indicated a positive correlation between age and drugs ($r = .31$, $p < .001$) and age and delinquency ($r = .13$, $p < .001$).

**Discussion**

The aim of this study was to examine the parent-child relationship whereby specific parental styles (based on Baumrind’s typologies) were predicted to have an effect on a range of behavioural outcomes, both internal and external. Each outcome variable was examined against the three predictor variables to see which parenting style would contribute the most to a specified outcome.

Authoritarian parenting, which was classed as psychologically controlling for this study, was initially predicted to contribute to internal symptoms such as depression, loneliness and self-esteem based on previous studies (Barber & Harmon, 2002; Alizadeh et al., 2011). Bivariate correlations showed medium strength relations between the predictor and outcome variables, while partial correlations were still significant but smaller ($r < .2$) for depression and loneliness. Overall the stepwise regressions showed that there is a significant link between authoritarian parenting and all three internal symptoms (depression, loneliness and self-esteem) and partial correlations showed that the effect of the other two parenting styles only marginally influence the outcome. For self-esteem, stepwise regressions showed authoritarian parenting to be the only parenting style to enter the model at $p < .003$. Based on the manipulative and intrusive nature of this type of parenting (Soenens et al., 2008) it is not surprising that this would create an adolescent with low self-esteem and a negative perspective about themselves. In a Spanish study by Martinez and Garcia (2007), parenting styles and self-esteem were measured and it was found that adolescents with authoritarian parents scored lowest on self-esteem. Low self-esteem can have an effect on numerous outcomes (employment, relationships, education to name a few) and it is imperative that any preventative programs educating on parenting style take into account the long lasting effects negative parenting styles can have. Surprisingly authoritarian parenting was the only predictor variable to contribute to delinquency and aggression in the stepwise regression. These results are in conflict with the second hypothesis whereby permissive parenting was predicted to have the largest influence on external behaviours as based on
previous research (Alizadeh et al., 2011). While the results may not have been as expected, an interesting study on intrusive parenting and peer relations amongst adolescents may provide some answers to this. It seems as if the act of prohibiting (forbidding) is related to adolescent’s affiliation with deviant friends (Soenens, Vansteenkiste, Smits, Lowet, & Goossens, 2007). In terms of authoritarian parenting, prohibitive or forbidding actions fit well with the controlling aspect of this parenting style. The study showed that negative peer affiliation could in turn lead to negative behaviour and this should certainly be taken into account when considering the results of authoritarian parenting style. An Australian/American study on aggressive behaviour and parenting style found that authoritarian parenting, specifically by the father, had an effect on the outcome on both boys and girls (the study was based on parents’ perspective of both their own and child’s behaviour) (Russel, Hart, Robinson & Olsen, 2003). In the study presented here, 81% had both their parents in mind when answering the questionnaire and only 1% their father so it is difficult to ascertain if parental gender influenced the results. It is clear however that authoritarian parenting, through its harsh and controlling demeanour, can also have a detrimental effect on external behaviour in children, contrary to the second hypothesis in this study.

Permissive parenting in this study was defined by parental knowledge and monitoring. Previous studies had shown that high parental control leads to lower norm breaking (in child rated studies) (Stattin & Kerr, 2000) suggesting reversely that low parental control could lead to more norm breaking behaviour. Stepwise regressions showed permissive parenting as the main predictor of drugs, with authoritative parenting entering at the second step, also positively predicting drug use. Patock-Peckman and Morgan-Lopez found in their study (2006) that permissive parenting does have an effect on drug and alcohol use which is indicated by these results. Neither bivariate or partial correlations, or regression analysis showed positive links between permissive parenting style and delinquency or aggression. However, Patock-Peckman and Morgan-Lopez (2006) noted that there is a difference between warm, permissive parenting style and neglectful parenting style (both of which fall into the realms of permissive parenting style) and this needs to be considered when interpreting these results. It could well be that children perceive parents as not setting boundaries on curfews or relationships as something positive rather than neglectful. It is worth noting that the means of authoritative parenting ($M = 3.43, SD = .57$) and permissive parenting ($M = 3.05, SD = .94$) were very close, indicating that both these parenting styles may have been rated similarly by children. In a study examining the relationship between parenting styles (based on Baumrind’s typologies) and school performance, both authoritative and permissive parenting were negatively correlated to bad school performance whereas authoritarian parenting was positively correlated (Dornbusch, Ritter, Leiderman, Roberts & Fraleigh, 1987). Further studies including questions on the more neglectful aspects of permissive parenting would be useful in future studies. These results are somewhat in conflict with the second hypothesis whereby permissive parenting was predicted to have the largest influence on all external behaviours as based on previous research (Alizadeh et al., 2011) as permissive parenting was not found to have an effect on delinquency or aggression,
and further studies need to be conducted using different measures of permissiveness as suggested above. Age was shown to have an effect on drug use whereby as age increased, so did substance use.

It was predicted that authoritative parenting (a supportive/accepting parenting style) would provide the most positive outcome across all six variables measuring behaviour. While this parenting style did not have a significant effect on all variables, authoritative parenting negatively correlated with depression and loneliness in the stepwise regression as well as delinquency and aggression in the bivariate correlations. This indicates that a warm but firm parenting style (Steinberg, 2001) can help in reducing mental health issues in children as well as act as a protective factor against behavioural issues such as anger and norm breaking behaviour. Future parenting programs should certainly lay their focus on what works in terms of parenting style and the positive outcomes that can be had. In a review of parenting practices, Spera (2005) found that authoritative parenting had an effect on a range of positive outcomes such as academic performance, with similar results found by Dornbusch et al., 2007 when it came to authoritative parenting and educational outcome. Alizadeh et al., (2011) found that their results indicated that authoritative parenting produced less internalizing and externalising symptoms in children.

Bivariate correlations showed that depression and loneliness were affected by gender, and drugs was the only outcome variable affected by age. A t-test showed that females scored higher on depression and loneliness than males which is consistent with a Swedish study from 2013/2014 where figures showed that 15% of females aged 10-18 reported mental health problem versus 7% of males in the same age category, (Barnombudsmannen, 2016). On drug and alcohol related measures, the Swedish study did find small gender differences and also found that drug and alcohol use increased with age where 16% of Swedish grade nine versus 6% of Swedish grade 7, used drugs or alcohol, (Barnombudsmannen, 2016). A Spearman correlation also confirmed a positive correlation between drugs and age but also between delinquency and age. It was hypothesised that there would be more gender differences on the variables measuring external behaviour, however, no such indications were found in this study. Several studies have shown that females are engaging in delinquent behaviour at a higher level (Huh et al., 2006) and the Swedish study above found that although gender differences were found, these were not really significant.

**Limitations**

While this study clearly showed that authoritarian parenting is the largest predictor of internal behavioural symptoms, the study did not answer the second hypothesis as predicted. In the second hypothesis it was predicted that permissive parenting would be the largest predictor of external behaviours such as aggression and substance use. However, the regression analysis showed that authoritarian parenting was the only significant contributor to aggression and delinquency. This contradicts previous studies which have in fact found that permissive parenting can have a detrimental effect on adolescent’s external behaviour, (Krueger et al., 2009; Alizadeh et al., 2011). As has been mentioned before, there are aspects of permissive parenting of which neglect is one. In
in this study the scale for permissive parenting was more focused on parental knowledge, for example parents knowing their child’s whereabouts or with whom they were associating. It is possible that it did not accurately reflect the neglectful aspect of permissive parenting where the child may actually feel that their parents do not care about them. Further studies need to include different scales to incorporate a more neglectful aspect of permissive parenting which may yield different results. Racz and McMahon (2011), in a study on parental knowledge and conduct problems found that many studies used vague definitions. It would be useful to conduct further studies on links between external behaviours and permissive parenting style by using other measures which may yield different results.

Longitudinal data was available but as this was not the focus of this study, only wave two was used. However, further studies conducting analysis over several waves of data could prove useful to see how the results change, especially when taking age into consideration. In addition, being able to compare the child’s perspective of parenting style and behaviour to that of the parent’s would prove useful in future studies to see how they differ and address some of the issues raised in Yahav’s (2006) study such as whether symptomatic children are more extreme in their emotional reaction or more sensitive to family dysfunction (Yahav’s study used siblings as a control group). Comparing the child’s perspective to the parents has definite merit as shown by studies on reciprocity on the subject (Soenens et al., 2008; Stice & Barrera, 1995). Caution must be taken when interpreting answers resulting from just one perspective of the parent-child relation. Stice and Barrera (1995) found in their study on the reciprocal effects between perceived parenting and external behaviour, that in certain cases that the adolescent’s perception of parenting did not always reflect the actual parenting style, for example a young person who is using drugs may justify their use by rating their parents as permissive. However, as Yahav (2006) pointed out in his study, there is merit in acting upon the adolescent’s perception when it comes to providing intervention as this will create a better fit of treatment and in time one might hope that this would allow for a better outcome, regardless of how subjective the perception might be.

Skewed data, specifically on the variables measuring external behaviour, may have had an impact on the results from these analyses. While attempts were made to rectify the skewness, the huge amount of subjects answering scores of one (never) meant a very negative skew on these variables. More complex models of analysis and further non-parametric tests would be useful to undertake.

**Implications**

The aim and reasoning behind this study was to look at parenting styles from a child’s perspective to examine the links between this and behavioural outcome. Adolescent mental health and behavioural symptoms are problems that do not only affect the child itself and the family around them but also society as a whole. To ascertain which form of parenting can yield the most positive trajectory for a young person is always valuable and this study furthered work from many studies that already exist on the topic by examining self-rated answers on both parenting styles and outcomes. The perceived parenting style
can be deemed just as valid, even if it is subjective rather than objective (Yahav, 2006) as it is this perception that the child acts upon. In terms of intervention this means more appropriate help can be given to the young person rather than interventions based on parents’ (or even authorities’) perspective of the young person’s behaviour. The implications of this study are therefore to both educate adults on best parenting styles based on authoritative parenting, for an overall positive and healthy outcome for their child, but also to be able to better provide specific intervention to young people suffering with mental health issues or external issues such as alcohol use, delinquency or anger management problems. By tailor making interventions based on the child’s perception of how they feel their parents are treating them, better results should be achieved giving the young person more control over their treatment and outcome. In addition, it is worth considering gender and age specific treatment, especially when it comes to drug and alcohol use (age) and depression and loneliness (gender) with programs reaching out specifically to young girls. Whilst age was not a factor for delinquency or aggression, it is worth considering that drug and alcohol use can act as a mediator to deviant behaviour and further studies examining links in this area would be useful. In addition, preventative programs educating on drugs and alcohol have significance for overall health of young people.

Steinberg (2001) felt that parents needed to know the basic implications of positive parenting ways and suggested a wide-scale preventative program to draw on the collective knowledge and resources of psychologists, service providers and so on. Whilst this may seem an overambitious project, it is true that decades of research have provided an incredible amount of knowledge on parent-child relationship, family dynamics, best parenting practices and so on, yet many behavioural issues for adolescents pervade, and indeed have increased over the years. This study aimed to contribute to this wealth of knowledge to hopefully further the understanding of the effects that parenting styles can have on adolescents and also promote more educational and interventional efforts to contribute to positive adolescent development. Despite the wealth of knowledge, there appears to be a lack in actually improving the well-being of young people. Scientific study is all very well but implementation needs to be the focus moving forward.

In the 1960’s, Diana Baumrind set in motion decades of research into parenting styles by developing her ‘Goldilocks’ theory on parenting (authoritarian – too hard, permissive – too soft, authoritative – just right). While some of Baumrind’s ideas are not to everyone’s liking (she believes that mild corporal punishment does not have a detrimental effect on child outcome) it cannot be denied that she laid the foundations for continuous study into the parent-child relationship. Her typologies are being developed and enhanced as new theories enter into play and societal frameworks change. Based on Baumrind’s work, this study wished to answer the question set forth by Steinberg (2001) in his presidential address, ‘Are some parenting styles better than others?’ (p.2). Steinberg answered this question based on years of research conducted by himself, Baumrind and many other psychologists, by concluding that generally, authoritative parenting style yields the best outcome on a variety of variables such as psychosocial
development, mental health and reduced antisocial behaviour. While not all the hypotheses proposed in this study yielded the expected outcome, a conclusion can be reached, in line with Steinberg’s thoughts on the matter, that authoritative parenting is clearly the most positive parenting style in light of a positive outcome for the child. It was also evident that authoritarian parenting not only has an effect on internal symptoms as predicted, but also has a detrimental effect on external behaviour. Whether it’s providing positive parenting practices to help parents based on authoritative parenting, or providing intervention and family therapy to children from authoritarian households, studies such as this one help to address the current state of parent-child relations and seeks to offer answers, as well as solutions.
Acknowledgements

With thanks to Associate Professor Dr J. Gowert Masche-No for the provision of data material from his study on adolescents, without which this Masters thesis would not be possible.

I would also like to thank Professor J. Jensen for support and guidance during the writing of this thesis.
References


