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Epoch And Psychopathology Among Adolescents of Matrilineal and Patrilineal Societies in Meghalaya

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Abstract— The present study was carried out to examine the predictive role of positive psychological traits (EPOCH—Engagement, Perseverance, Optimism, Connectedness, and Happiness) in relation to psychopathology among adolescents from matrilineal and patrilineal societies in Meghalaya, India. A cross-sectional survey was conducted with 1,156 adolescents (645 matrilineal; 511 patrilineal) using standardized assessment tools. Analyses revealed that adolescents from matrilineal societies reported higher levels of positive traits and substance abuse disorder, whereas adolescents from patrilineal societies showed greater vulnerability to oppositional defiant disorder and suicide. Regression results identified happiness and perseverance as the most consistent protective factors. These findings underscore the importance of culturally sensitive mental health strategies that foster universal protective traits while addressing society-specific vulnerabilities.

Keywords: EPOCH, psychopathology, matrilineal and patrilineal societies, Meghalaya, and adolescents

I. INTRODUCTION

The cultural context in which individuals grow plays a significant role in shaping their personality, mental health, and resilience. Meghalaya, a small state in Northeast India, is home to a rich tapestry of tribal and non-tribal communities with distinct cultural practices. The Khasi, Jaintia and Garo tribes collectively represent the matrilineal communities, where lineage and inheritance are passed through the female line, and women traditionally hold a central role in family and social structures. In contrast, non-tribal groups in Meghalaya, such as the Nepalis, Bengalis, Assamese, Tamils, Malayalees, and others typically follow a patrilineal or patriarchal system, where lineage is traced through the father and inheritance is passed along the male line. These non-tribal communities have increasingly settled in Meghalaya due to migration for work, education, and other economic opportunities, contributing to the state's cultural and demographic diversity.

These divergent kinship systems provide a unique cultural lens for examining EPOCH and psychopathology, as adolescence is a critical period marked by identity formation, emotional regulation, increasing social complexity, and the development of self-awareness, including an understanding of one's strengths. This stage can be a time of enhanced well-being and resilience, but it may also bring increased vulnerability to psychological distress, making it important to explore how cultural contexts shape both positive development and mental health risks.

II. WELL-BEING

The concept of well-being has been widely studied in psychology, traditionally divided into hedonic and eudaimonic approaches. The hedonic tradition, rooted in the work of philosophers such as Aristippus and later Bentham, emphasises the pursuit of pleasure and the avoidance of pain as the foundation of a good life. In psychology, this perspective evolved into the study of subjective well-being, often measured through happiness, life satisfaction, and the balance of positive and negative emotions (Diener, 1984; Kahneman et al,1999). The hedonic approach highlights how emotional experiences and perceived satisfaction contribute to psychological health, but it has also been critiqued for focusing too narrowly on pleasure rather than deeper aspects of human growth.

In contrast, the eudaimonic perspective, drawing on Aristotle's concept of "living in accordance with one's true self," views well-being as the realisation of human potential, purpose, and personal growth (Ryan & Deci, 2001). This approach emphasises meaning, self-actualization, and the development of personal strengths as central to flourishing. Over time, these perspectives have converged into multidimensional theories of well-being that integrate both hedonic and eudaimonic elements.

It is within this context that Seligman's work on positive psychology became influential. Initially, Seligman (2004) described well-being through his theory of "Authentic Happiness," focusing heavily on hedonic pleasure and life satisfaction. However,

he later expanded this view, acknowledging its limitations in capturing human flourishing. This evolved into the PERMA model (Seligman, 2011), which integrates both hedonic and eudaimonic approaches and conceptualises well-being as comprising five domains: Positive emotions, Engagement, Relationships, Meaning, and Accomplishment. By doing so, PERMA moves beyond transient happiness to include social bonds, purpose, and achievement, making it one of the most widely applied and empirically validated frameworks of well-being across cultures and age groups (Kern, Waters, Adler, & White, 2014; Kovich et al., 2023).

III. EPOCH

The EPOCH model of adolescent well-being was developed by Kern, Benson, Steinberg, and Steinberg (2016) as a youth-specific adaptation of Seligman's PERMA framework. While PERMA captures flourishing more broadly across the lifespan, Kern and colleagues recognised the need for a developmentally appropriate model that reflects the unique challenges and strengths of adolescence. As such, EPOCH encompasses five core components: Engagement, Perseverance, Optimism, Connectedness, and Happiness, which parallel the domains of PERMA but are operationalised in ways that are more relevant to young people navigating identity formation, autonomy, and peer relationships.

EPOCH has been found to correlate strongly with other indicators of psychological well-being and life satisfaction. Kern et al. (2016) demonstrated that adolescents with higher EPOCH scores report fewer symptoms of anxiety, depression, and behavioural problems. The model is especially valuable in identifying protective factors that promote resilience during the turbulent adolescent years.

In the context of cultural systems, such as matrilineal and patrilineal societies, the expression of EPOCH domains may vary. For instance, connectedness may be particularly emphasised in matrilineal communities that prioritise kinship bonds and communal living, whereas perseverance and independence might be more valued in patriarchal settings. Assessing EPOCH among adolescents in Meghalaya can therefore provide insights into how cultural structures influence both emotional strengths and psychological vulnerabilities. This line of inquiry is supported by subsequent validation studies that have reinforced the reliability and cross-cultural applicability of the EPOCH model. For instance, Zeng and Kern (2019) confirmed its five-factor structure and measurement invariance among Chinese adolescents across diverse regions and school types. Additionally, a large-scale longitudinal study across nine countries found that higher physical activity at age 16 predicted greater EPOCH well-being by age 18, demonstrating the model's predictive robustness in diverse cultural contexts (Bertrand et al., 2025)

IV. PSYCHOPATHOLOGY

Psychopathology in adolescence is commonly expressed through a range of internalising problems (such as depression and anxiety) and externalising problems (such as conduct issues and aggression), both of which are particularly salient during this developmental stage. In the present study, psychopathology is assessed using the Adolescent Psychopathology Scale- Short form (APS; Reynolds, 2000), which provides a comprehensive framework for capturing these domains. The APS is widely used in adolescent populations and allows for a nuanced understanding of psychological difficulties, including both clinical symptoms and risk behaviours that interfere with developmental tasks and may increase vulnerability to long-term mental health problems. For instance, higher levels of emotional intelligence have been associated with fewer psychopathological symptoms among adolescents in Spain and Portugal, with mindfulness and reduced catastrophizing partially mediating this relationship (Piqueras et al., 2020). Similarly, studies on character strengths show that traits such as self-regulation, perseverance, and zest are independently associated with lower levels of behavioural problems and greater resilience in early adolescence (Shoshani & Slone, 2016; Qin et al., 2022). Network analyses further reveal that strengths of restraint (e.g., self-control, persistence) are negatively linked to anxiety, obsessive-compulsive symptoms, and interpersonal sensitivity (Martínez-Martí et al., 2021). Notably, such positive attributes, ranging from perseverance and self-regulation to connectedness and self-image, are conceptually similar to the dimensions of well-being measured by EPOCH, as they all represent strengths that promote resilience and protect against psychopathology. Recent longitudinal evidence further suggests that higher well-being predicts a lower risk of future psychopathology, reinforcing the importance of viewing positive traits as protective factors in adolescent development (Rottenberg et al., 2019; Bertrand et al., 2025)

In culturally diverse contexts such as Meghalaya, the manifestation of psychological symptoms may be further shaped by kinship systems, gender roles, and social expectations. For instance, matrilineal societies, which are strongly collectivistic, emphasise extended family support and communal bonds that can strengthen connectedness and buffer against distress. Patrilineal societies are also collectivistic, but often more rigidly and hierarchically, where authority, conformity, and gender roles are more strongly emphasised. Research by Ellena and Nongkynrih (2017) highlights this contrast, showing that gender roles appeared more

flexible and more egalitarian in matrilineal Khasi society, whereas in patrilineal societies like Chakhesang, gender roles were more rigidly defined and more hierarchical. These structural differences shape how adolescents experience autonomy, perseverance, and connectedness, thereby influencing the expression and perception of psychological symptoms. Understanding how EPOCH dimensions interact with psychopathology in such settings is thus essential for developing culturally responsive approaches to adolescent mental health.

V. METHODOLOGY

V.I. RESEARCH QUESTIONS

1. Whether matrilineal and patrilineal lineages affect EPOCH and Psychopathology of adolescents in Meghalaya?
2. Can Psychopathology be predicted from EPOCH?

V.II. RESEARCH OBJECTIVES

1. To examine EPOCH and psychopathology of adolescents belonging to matrilineal and patrilineal societies in Meghalaya
2. To examine the predictive relationship between EPOCH and Psychopathology among adolescents of matrilineal and Patrilineal societies in Meghalaya.

V.III. HYPOTHESES

H01: There will be no significant difference in EPOCH of adolescents, belonging to matrilineal and patrilineal societies

H02: There will be no significant difference in Psychopathology of adolescents, belonging to matrilineal and patrilineal societies

H03: EPOCH will not significantly predict psychopathology among adolescents of matrilineal and Patrilineal societies in Meghalaya.

V.IV. TYPE OF RESEARCH AND RESEARCH DESIGN

The present study is an ex post facto research, a non-experimental method that examines naturally existing group differences without manipulation of variables. It is quantitative, cross-sectional, and comparative in nature, focusing on adolescents from matrilineal and patrilineal societies of Meghalaya.

V.V. SAMPLE

Data for the study were collected from adolescents in Meghalaya using a multistage sampling method. First, three districts were purposively selected: East Khasi Hills, for its diverse student population in Shillong; West Jaintia Hills, for its proximity to East Khasi Hills; and West Garo Hills, for its central hub of education in Tura. From the list of schools registered under the Meghalaya Board of School Education (MBOSE), twenty schools were randomly chosen, of which sixteen granted permission to participate. Finally, students from classes eight, nine, and ten who met the inclusion criteria participated, yielding a total sample of 1,156 adolescents, of whom 645 belonged to matrilineal communities and 511 to patrilineal communities.

V.VI. TOOLS

To determine adolescent's EPOCH (well-being), Margareth Kern's (2016) EPOCH (Engagement, Perseverance, Optimism, Connectedness, and Happiness) Measure of Adolescents well-being was used.

The scale focuses on five key elements that enhance general well-being and promote flourishing.

- **Engagement: "**Being deeply involved in and absorbed by one's activities—often described as the flow experience."
- **Perseverance: "**Persisting in tasks and goals despite obstacles or difficulties."
- **Optimism: "**Expecting good things to happen in the future; positive future-oriented thinking."
- **Connectedness:** "Having positive and supportive relationships with family, friends, and community; a sense of belonging."
- **Happiness: "**Experiencing positive mood and feelings of satisfaction with life"

To assess the psychopathology and problematic behaviours of adolescents, the Adolescent Psychopathology Scale – Short Form (APS-SF), developed by William M. Reynolds, was utilised. Grounded in the diagnostic criteria of the DSM-IV, the APS evaluates the presence and severity of symptoms across twelve categories of psychological disorders, offering a holistic view of adolescent mental health. These categories are as follows:

- **Conduct Disorder**: Involves persistent antisocial behaviours such as aggression, deceitfulness, destruction of property, and violation of social norms or rules.
- **Oppositional Defiant Disorder**: Characterised by chronic patterns of anger, argumentative, and defiant behaviours towards authority figures.
- **Major Depressive Disorder**: Includes symptoms such as persistent sadness, irritability, loss of interest or pleasure in activities, fatigue, and difficulty concentrating.
- **Generalized Anxiety Disorder**: Marked by excessive, uncontrollable worry and anxiety across multiple areas of life, often accompanied by physical symptoms such as restlessness or muscle tension.
- **Post-Traumatic Stress Disorder**: Involves intrusive memories, avoidance of trauma reminders, negative shifts in mood and cognition, and heightened arousal following exposure to traumatic events.
- **Substance Abuse Disorders**: Reflect the misuse of drugs or alcohol, which can impair cognitive, emotional, and social functioning.
- **Eating Disorders**: Includes symptoms of anorexia nervosa and bulimia nervosa, such as unhealthy eating behaviours, extreme weight control measures, and distorted body image.
- **Suicide**: Assesses suicidal ideation, intent, attempts, and related behaviours such as self-harm and withdrawal.
- **Academic Difficulties**: Captures issues related to poor academic performance, truancy, learning disabilities, and school disengagement.
- **Anger/Violence Proneness**: Encompasses tendencies toward physical aggression, frequent outbursts, irritability, and poor impulse control.
- **Self-Concept Problems**: Includes low self-esteem, feelings of worthlessness, negative self-evaluation, and identity confusion.
- **Interpersonal Issues**: Involves challenges in forming and maintaining relationships, social withdrawal, peer conflict, and family tensions.

V.VII. ETHICAL CONSIDERATIONS

Participants were fully informed about the purpose of the study, and consent was obtained before data collection. They were assured that all information provided would remain confidential and be used solely for research purposes. Students were assured of their right to withdraw at any stage, and care was taken to avoid harm, influence, or bias. In cases where participants scored high on the Adolescent Psychopathology Scale, school authorities were notified and advised to refer them to a counsellor. Ethical clearance for the study was obtained from the Institutional Ethics Committee of Gauhati University (GUIEC).

V.VIII. PROCEDURE

At first, the researcher approached schools across the identified districts. Formal permission was obtained from all participating institutions. Students from Classes 8, 9, and 10 who voluntarily agreed to participate were included in the study. Before participation, each student was provided with an informed consent form detailing the study's objectives, procedures, and assurances of confidentiality, along with a set of standardised questionnaires. Upon completion, the questionnaires were collected, and students were thanked for their cooperation. The collected data were then scored and subjected to statistical analysis to test the proposed hypotheses.

VI. RESULTS AND DISCUSSION

The present study aimed to examine differences in EPOCH and psychopathology among adolescents belonging to matrilineal and patrilineal societies in Meghalaya. It also sought to explore the predictive relationship between EPOCH and psychopathology in these groups. First, the data's normality was checked using the Kolmogorov-Smirnova (Test of Normality) Test. The data did not meet the criteria for normality, so non-parametric statistics were used.

The Mann-Whitney U test was used to determine whether there was a significant difference between adolescents from matrilineal and patrilineal societies on EPOCH, and psychopathology.

The differences in EPOCH between adolescents belonging to matrilineal and Patrilineal Societies were examined using the Mann-Whitney U test, and the results are presented in Table 1 below.

Table 1: Mann-Whitney U test for EPOCH based on societies

	Societies	N	Meam Rank	Sum of Ranks	Mann Whitney U	Z	Asymp.Sig (2 tailed)
Engagement	Matrilineal	645	581.93	375346.50	162583.500	-.394	.693
	Patrilineal	511	574.17	293399.50			
Perseverance	Matrilineal	645	613.77	395879.00	142051.000	-4.047	<0.001**
	Patrilineal	511	533.99	272867.00			
Optimism	Matrilineal	645	619.21	399391.00	138539.000	-4.672	<0.001**
	Patrilineal	511	527.11	269355.00			
Connectedness	Matrilineal	645	588.18	379378.00	158552.000	-1.111	.266
	Patrilineal	511	566.28	289368.00			
Happiness	Matrilineal	645	617.14	398052.50	139877.500	-4.434	<0.001**
	Patrilineal	511	529.73	270693.50			

*** Significant at 0.01*

** Significant at 0.05*

Table 1 displays the Mann-Whitney U values for adolescents from matrilineal and patrilineal societies on EPOCH (Engagement, Perseverance, Optimism, Connectedness, and Happiness). Results reveal that adolescents from matrilineal societies scored higher in all dimensions, with statistically significant differences noted only in Perseverance, Optimism, and Happiness. These findings suggest that cultural structures significantly influence mental health outcomes. Adolescents in matrilineal societies likely benefit from stronger support systems and emotionally expressive environments, promoting greater emotional security and resilience, which can lead to higher scores on perseverance, optimism and happiness. Studies by Hartati, Minza, & Yuniarti (2021) show that in matrilineal cultures, the child's welfare is often safeguarded by maternal relatives, which buffers adolescents against some stressors such as parental divorce and promotes emotional well-being. No significant differences were found between matrilineal and patrilineal societies in the domains of connectedness and engagement. While matrilineal adolescents may draw connectedness primarily from maternal extended family ties, adolescents in patrilineal societies appear to compensate through peers, schools, and religious or community groups, reflecting alternative but equally meaningful sources of belonging. Similarly, the comparable scores on engagement suggest that adolescents across both societies are equally motivated and involved in academics, extracurricular, and social activities, likely because educational institutions and peer networks provide common opportunities for active participation regardless of the kinship system. Hence, the hypothesis, there will be no significant difference in EPOCH of adolescents, belonging to matrilineal and patrilineal societies, is partially accepted.

VI.I. RESULTS ON PSYCHOPATHOLOGY (BASED ON SOCIETIES)

The differences in Psychopathology between adolescents belonging to matrilineal and Patrilineal Societies were examined using the Mann-Whitney U test, and the results are presented below.

Table 2 Mann-Whitney U test for Psychopathology based on societies

	Gender	N	Mean Rank	Sum of Ranks	Mann Whitney U	Z	Asymp.Sig (2 tailed)
CND (Conduct Disorder)	Matrilineal	645	562.31	362687.00	154352.000	-1.872	.061
	Patrilineal	511	598.94	306059.00			
OPD (Oppositional Defiant Disorder)	Matrilineal	645	549.45	354393.00	146058.000	-3.345	.001**
	Patrilineal	511	615.17	314353.00			
SUB (Substance Abuse Disorder)	Matrilineal	645	589.80	380419.00	157511.000	-2.068	.039*
	Patrilineal	511	564.24	288327.00			
AVP (Anger/ Violence Proneness)	Matrilineal	645	565.58	364799.50	156464.500	-1.485	.138
	Patrilineal	511	594.81	303946.50			
ADP (Academics Problems)	Matrilineal	645	564.55	364133.50	155798.500	-1.607	.108
	Patrilineal	511	596.11	304612.50			
GAD (Generalized Anxiety Disorder)	Matrilineal	645	578.76	373297.50	164632.500	-.029	.977
	Patrilineal	511	578.18	295448.50			
PTS (Posttraumatic Stress Disorder)	Matrilineal	645	564.85	364326.00	155991.000	-1.570	.116
	Patrilineal	511	595.73	304420.00			
DEP (Major Depression)	Matrilineal	645	561.45	362136.00	153801.000	-1.956	.051
	Patrilineal	511	600.02	306610.00			
EAT (Eating Disturbance)	Matrilineal	645	589.52	380237.50	157692.500	-1.267	.205
	Patrilineal	511	564.60	288508.50			
SUI (Suicide)	Matrilineal	645	539.94	348260.50	139925.500	-4.453	0.001**
	Patrilineal	511	627.17	320485.50			
SCP (Self- Concept)	Matrilineal	645	579.02	373465.50	164464.500	-.059	.953
	Patrilineal	511	577.85	295280.50			
IPP (Interpersonal Problems)	Matrilineal	645	584.33	376890.00	161040.000	-.669	.503
	Patrilineal	511	571.15	291856.00			

*** Significant at 0.01*

** Significant at 0.05*

Table 3: Severity of Psychopathology Score based on Society

	Psychopathology Severity					
SOCIETY	Below 60 (normal)	60-64 (Subclinical)	65-69 (Mild)	70-79 (Moderate)	80 & above (Severe)	Total
Matrilineal Society	493 / 42.64%	121 / 10.47%	23 / 1.99%	7 / 0.61%	1 / 0.09%	645 / 55.81%

Patrilineal Society	367 / 31.76%	100 / 8.65%	35 / 3.03%	9 / 0.78%	0 / 0.00%	511 / 44.19%
Total	860 / 74.40%	221 / 19.12%	58 / 5.02%	16 / 1.38%	1 / 0.09%	1156 /100.00%

Table 2 reveals significant differences between matrilineal and patrilineal adolescents in three psychopathological domains. Patrilineal adolescents reported higher levels of Oppositional Defiant Disorder (OPD) and Suicide (SUI), while matrilineal adolescents showed higher levels of Substance Abuse Disorder (SUB). The findings suggest that cultural structures exert distinct influences on adolescent mental health. In patrilineal societies, characterised by rigid authority structures and gendered expectations, adolescents may be more vulnerable to oppositional behaviours, and suicidal tendencies. This aligns with studies such as that by Worell and Goodheart (2006), who discuss how traditional gender roles, such as expectations for men to be dominant, emotionally restrained, and authoritative, and for women to be nurturing, submissive, and confined to caregiving, can restrict personal growth and increase psychological stress. Such rigid roles tend to be more pronounced in patrilineal societies compared to matrilineal societies (Ellena & Nongkynrih, 2017), where individuals often experience greater social freedom. This disparity may contribute to higher emotional distress among adolescents in patrilineal settings.

Conversely, higher rates of substance use among adolescents in matrilineal societies may relate to greater social freedom and peer influence. While limited research evaluates substance use specifically in matrilineal systems, broader research indicates that increased autonomy and social interaction among adolescents can enhance experimentation with substances. Mathew et al. (2020) observed that adolescents with more freedom in certain cultural contexts showed higher substance use, highlighting a potential vulnerability alongside the emotional resilience matrilineal systems promote.

In addition to the statistically significant differences observed, Table 3 highlights the clinical severity of psychopathology among adolescents from both societies. The severity scores predominantly fall within the normal and subclinical ranges, suggesting that while group differences exist, most adolescents do not reach clinically concerning levels. For instance, adolescents from patrilineal societies showed higher mean ranks on oppositional defiant disorder and suicidal behaviours, yet majority of these scores were within normal or subclinical levels, with only a small proportion reaching mild to moderate severity. In contrast, matrilineal adolescents, who recorded higher mean ranks on substance use disorder, largely fell within the normal to mild range, with very few cases reaching moderate to severe clinical thresholds. Hence, the hypothesis, there will be no significant difference in Psychopathology of adolescents, belonging to matrilineal and patrilineal societies is partially accepted

Having established group differences between adolescents from matrilineal and patrilineal societies on EPOCH and psychopathology using the Mann–Whitney U test, regression analyses were subsequently conducted to assess the predictive role of EPOCH dimensions (Engagement, Perseverance, Optimism, Connectedness, and Happiness) on psychopathology among adolescents in these two cultural contexts. Regression Analysis was used to see if EPOCH predict Psychopathology (Conduct Disorder (CND), Oppositional Defiant Disorder (OPD), Substance Abuse Disorder (SUB), Anger/Violence Proneness (AVP), Academic Problems (ADP), Generalized Anxiety Disorder (GAD), Post-Traumatic Stress Disorder (PTS), Major Depression (DEP), Eating Disturbance (EAT), Suicide (SUI), Self-Concept (SCP) and Interpersonal Problems (IPP). The results obtained are presented below.

Table 4: Regression analysis of EPOCH to predict Conduct Disorder

SOCIETIES		B	Std. Error	T	Sig.
Matrilineal Society	Engagement	.145	.536	.271	.787
	Perseverance	-1.797	.518	-3.467	.001**
	Optimism	-1.517	.601	-2.523	.012*
	Connectedness	.464	.527	.879	.380

	Happiness	-.772	.571	-1.352	.177
Patrilineal Society	Engagement	-.810	.686	-1.182	.238
	Perseverance	-2.184	.707	-3.088	.002**
	Optimism	.804	.714	1.126	.261
	Connectedness	-1.342	.644	-2.084	.038*
	Happiness	.696	.659	1.057	.291

*** Significant at 0.01 level*

**Significant at 0.05 level*

Results from the above table show that perseverance significantly predicts lower levels of conduct disorder in both matrilineal and patrilineal societies, suggesting that self-discipline and goal-directed behaviour may act as protective factors. Additionally, optimism negatively predicts conduct disorder in matrilineal societies, possibly because a positive outlook helps individuals manage stress and frustration, reducing the likelihood of disruptive behaviour. Connectedness negatively predicts conduct disorder in patrilineal societies, indicating that strong social bonds and a sense of belonging may discourage rule-breaking and antisocial tendencies.

Table 5: Regression analysis of EPOCH to predict Oppositional Defiant Disorder

SOCIETIES		B	Std. Error	T	Sig.
Matrilineal Society	Engagement	.295	.403	.732	.465
	Perseverance	-.270	.390	-.693	.489
	Optimism	-.952	.452	-2.104	.036*
	Connectedness	-.300	.397	-.757	.449
	Happiness	-.897	.430	-2.088	.037*
Patrilineal Society	Engagement	1.002	.478	2.098	.036 *
	Perseverance	-.763	.493	-1.548	.122
	Optimism	-.063	.497	-.127	.899
	Connectedness	-.514	.449	-1.146	.253
	Happiness	-.283	.459	-.617	.538

*** Significant at 0.01 level*

**Significant at 0.05 level*

Results from the above table show that optimism and happiness significantly predict lower levels of oppositional defiant disorder (ODD) in matrilineal societies, suggesting that positive emotions and adaptive outlooks, fostered by emotionally expressive and supportive family systems, may protect against defiant behaviours. In patrilineal societies, engagement positively predicts ODD. This may suggest that when adolescents are highly absorbed in activities they enjoy, they may become more easily frustrated or irritable when faced with restrictions, criticism, or authority demands, especially in environments with rigid norms.

Table 6: *Regression analysis of EPOCH to predict Substance Use Disorder*

SOCIETIES				T	Sig.

		B	Std. Error		
Matrilineal Society	Engagement	.304	.307	.992	.321
	Perseverance	.173	.297	.582	.561
	Optimism	.146	.344	.424	.672
	Connectedness	.106	.302	.350	.726
	Happiness	-.417	.327	-1.275	.203
Patrilineal Society	Engagement	.150	.357	.420	.675
	Perseverance	.216	.368	.587	.558
	Optimism	.523	.371	1.408	.160
	Connectedness	-.095	.335	-.284	.777
	Happiness	-.981	.343	-2.862	.004*

** *Significant at 0.01 level*

**Significant at 0.05 level*

Results from the above table show that happiness significantly predicts lower levels of substance use disorder in patrilineal societies. This suggests that adolescents who experience higher levels of happiness may be less likely to rely on substances as a coping mechanism. A study by Park and Peterson (2008) found that positive emotions like happiness are linked to lower risk-taking and healthier behavioural choices in youth.

Table 7: Regression analysis of EPOCH to predict Anger Violence Proneness

SOCIETIES		B	Std. Error	T	Sig.
Matrilineal Society	Engagement	-.291	.405	-.718	.473
	Perseverance	-1.339	.392	-3.415	.001**
	Optimism	-.687	.455	-1.510	.132
	Connectedness	.568	.399	1.424	.155
	Happiness	-1.056	.432	-2.442	.015*
Patrilineal Society	Engagement	1.030	.523	1.968	.050*
	Perseverance	-.134	.540	-.247	.805
	Optimism	-.108	.545	-.198	.843
	Connectedness	-.860	.492	-1.750	.081
	Happiness	-1.283	.503	-2.550	.011*

** *Significant at 0.01 level*

**Significant at 0.05 level*

Results from the above table show that perseverance and happiness significantly predict lower levels of anger and violence proneness in matrilineal societies, suggesting that consistent goal-directed behaviour and positive emotional states may help adolescents manage frustration and reduce aggressive tendencies. In patrilineal societies, happiness also predicts lower levels of anger and violence proneness, indicating its broad protective role. However, engagement positively predicts anger and violence

proneness in patrilineal societies. Highly engaged adolescents may become easily irritated or angry when their activities are interrupted or constrained, leading to increased anger and violence proneness.

Table 8: Regression analysis of EPOCH to predict Academic Problems

SOCIETIES		B	Std. Error	T	Sig.
Matrilineal Society	Engagement	.781	.404	1.933	.054
	Perseverance	-.658	.391	-1.682	.093
	Optimism	-.534	.454	-1.178	.239
	Connectedness	.388	.398	.975	.330
	Happiness	-1.331	.431	-3.087	.002**
Patrilineal Society	Engagement	.599	.451	1.329	.184
	Perseverance	-2.312	.465	-4.971	<0.001**
	Optimism	.982	.469	2.092	.037*
	Connectedness	-.456	.423	-1.078	.282
	Happiness	-.189	.433	-.435	.664

** *Significant at 0.01 level*

**Significant at 0.05 level*

Results from the above table show that happiness significantly predicts lower levels of academic problems in matrilineal societies, suggesting that adolescents with higher levels of happiness may experience greater motivation, concentration, and overall academic adjustment. In patrilineal societies, perseverance negatively predicts academic problems, indicating that self-discipline and sustained effort are key protective factors in more structured educational environments. Interestingly, optimism positively predicts academic problems in patrilineal societies. This may suggest that overly optimistic adolescents might underestimate academic demands or overestimate their capabilities, potentially leading to poorer performance when effort and planning are lacking.

Table 9: Regression analysis of EPOCH to predict Generalized Anxiety Disorder

SOCIETIES		B	Std. Error	T	Sig.
Matrilineal Society	Engagement	.261	.378	.690	.491
	Perseverance	-.084	.366	-.230	.818
	Optimism	-.136	.424	-.320	.749
	Connectedness	.937	.372	2.519	.012*
	Happiness	-1.955	.403	-4.849	<0.001**
Patrilineal Society	Engagement	.889	.435	2.046	.041*
	Perseverance	-.748	.449	-1.667	.096
	Optimism	.119	.453	.262	.793
	Connectedness	.147	.408	.361	.718

	Happiness	-1.520	.418	-3.636	<0.001**

** *Significant at 0.01 level*

**Significant at 0.05 level*

Results from the above table show that happiness significantly predicts lower levels of generalized anxiety disorder (GAD) in both matrilineal and patrilineal societies, suggesting that adolescents with higher levels of happiness are better equipped to manage worry and stress. In matrilineal societies, connectedness positively predicts higher levels of anxiety. This may indicate that adolescents who are deeply embedded in social relationships might experience heightened sensitivity to others' expectations or stress within interpersonal dynamics. In patrilineal societies, engagement positively predicts GAD, possibly because when adolescents become too absorbed in various activities, they may neglect other important areas of life, leading to an imbalance that contributes to stress and anxiety over time.

Table 10: *Regression analysis of EPOCH to predict post*-traumatic stress disorder

SOCIETIES		B	Std. Error	T	Sig.
Matrilineal Society	Engagement	-.140	.419	-.335	.738
	Perseverance	-.294	.405	-.727	.468
	Optimism	-.121	.470	-.258	.796
	Connectedness	.934	.412	2.267	.024*
	Happiness	-2.496	.446	-5.591	<0.001**
Patrilineal Society	Engagement	1.249	.526	2.373	.018*
	Perseverance	-.234	.543	-.431	.667
	Optimism	.731	.548	1.333	.183
	Connectedness	-.888	.494	-1.797	.073
	Happiness	-2.452	.506	-4.847	<0.001**

** *Significant at 0.01 level*

**Significant at 0.05 level*

Results from the above table show that happiness significantly predicts lower levels of post-traumatic stress disorder (PTSD) in both matrilineal and patrilineal societies, suggesting that happiness serves as a strong protective factor across cultural contexts. In matrilineal societies, connectedness positively predicts PTS, which may indicate that while strong familial and kinship support is typically beneficial, excessive involvement from extended family networks can sometimes contribute to emotional strain. Adolescents may feel overwhelmed by frequent inquiries or pressured to repeatedly discuss their traumatic experiences, potentially intensifying stress and hindering recovery. In patrilineal societies, engagement positively predicts PTS, possibly because adolescents who are highly involved in activities may neglect emotional processing or self-care, leading to accumulated stress and heightened vulnerability to trauma-related symptoms.

Table 11: Regression analysis of EPOCH to predict depression (DEP)

SOCIETIES		B	Std. Error	T	Sig.
Matrilineal Society	Engagement	-.432	.429	-1.007	.314
	Perseverance	-.437	.415	-1.053	.293

	Optimism	-.076	.482	-.158	.875
	Connectedness	.801	.423	1.895	.059
	Happiness	-2.577	.458	-5.629	<0.001**
Patrilineal Society	Engagement	.835	.546	1.528	.127
	Perseverance	-.309	.564	-.549	.583
	Optimism	1.094	.569	1.923	.055
	Connectedness	-.688	.513	-1.340	.181
	Happiness	-3.180	.525	-6.055	<0.001**

** *Significant at 0.01 level*

**Significant at 0.05 level*

Results from the above table show that happiness significantly predicts lower levels of depression in both matrilineal and patrilineal societies, underscoring the robust protective role of positive emotional experiences in adolescent mental health. Higher levels of happiness are often linked to greater life satisfaction, emotional regulation, and resilience, which can buffer against depressive symptoms. Furthermore, a positive emotional state can enhance social relationships and a sense of meaning, both of which contribute to lower vulnerability of psychopathology.

Table 12: Regression analysis of EPOCH to predict Eating Disturbance (EAT)

SOCIETIES		B	Std. Error	T	Sig.
Matrilineal Society	Engagement	.887	.528	1.682	.093
	Perseverance	-1.055	.511	-2.067	.039*
	Optimism	.182	.592	.307	.759
	Connectedness	.108	.520	.208	.835
	Happiness	-1.492	.563	-2.651	.008**
Patrilineal Society	Engagement	.342	.621	.551	.582
	Perseverance	.191	.641	.298	.766
	Optimism	-.273	.647	-.423	.673
	Connectedness	-.447	.583	-.766	.444
	Happiness	-.692	.597	-1.158	.247

** *Significant at 0.01 level*

**Significant at 0.05 level*

Results from the above table show that in matrilineal societies, both perseverance and happiness significantly predict lower levels of eating disturbances. This suggests that adolescents who demonstrate self-discipline and goal-directed behaviour may be better at regulating eating habits and resisting disordered eating patterns. Additionally, higher happiness levels are likely to reduce emotional distress or body dissatisfaction, both of which are known contributors to eating problems (Yan et al., 2022, Safi et al., 2017). These protective effects may be amplified in matrilineal cultures where emotional expression and social support are more accessible. In contrast, none of the EPOCH dimensions significantly predict eating disturbances in patrilineal societies, possibly indicating that other cultural or familial dynamics play a stronger role in shaping eating behaviours.

Table 13: Regression analysis of EPOCH to predict Suicide (SUI)

SOCIETIES		B	Std. Error	T	Sig.
Matrilineal Society	Engagement	-.028	.560	-.050	.960
	Perseverance	-.935	.542	-1.727	.085
	Optimism	-1.640	.628	-2.610	.009**
	Connectedness	.053	.551	.096	.924
	Happiness	-2.576	.597	-4.315	<0.001**
Patrilineal Society	Engagement	.517	.718	.720	.472
	Perseverance	.951	.740	1.285	.199
	Optimism	.652	.747	.872	.383
	Connectedness	-1.629	.674	-2.417	.016*
	Happiness	-3.959	.690	-5.739	<0.001**

*** Significant at 0.01 level*

**Significant at 0.05 level*

Results from the above table show that happiness significantly predicts lower levels of suicide in both matrilineal and patrilineal societies, reaffirming the strong protective role of happiness in preventing suicidal ideation and behaviour. In matrilineal societies, optimism also predicts lower suicide. This may be because adolescents in these societies often receive strong support not only from their family but also from the wider community, such as neighbours or religious groups, which gives them a more hopeful view of the future. In patrilineal societies, connectedness significantly predicts lower suicide levels, indicating that strong interpersonal bonds and a sense of belonging may be particularly crucial in hierarchical family systems where emotional expression may be less emphasized.

Table 14: Regression analysis of EPOCH to predict Self-Concept (SCP)

SOCIETIES		B	Std. Error	T	Sig.
Matrilineal Society	Engagement	.193	.410	.470	.639
	Perseverance	-.201	.396	-.507	.612
	Optimism	-1.092	.460	-2.375	.018*
	Connectedness	-.175	.403	-.434	.664
	Happiness	-3.168	.437	-7.251	<0.001**
Patrilineal Society	Engagement	.987	.486	2.030	.043*
	Perseverance	-.334	.501	-.667	.505
	Optimism	-.660	.506	-1.304	.193
	Connectedness	-.943	.456	-2.065	.039*
	Happiness	-3.223	.467	-6.899	<0.001**

*** Significant at 0.01 level*

**Significant at 0.05 level*

Results from the above table show that happiness significantly predicts better self-concept (i.e., fewer self-concept difficulties) in both matrilineal and patrilineal societies. This underscores the strong protective role of happiness in shaping how adolescents view and value themselves. In matrilineal societies, optimism is linked to better self-concept, suggesting that a hopeful outlook may help youth feel more confident and self-assured. In patrilineal societies, engagement is associated with lower self-concept problems, possibly because being actively involved in meaningful activities helps build a sense of competence and identity. Additionally, connectedness in patrilineal societies predicts better self-concept, indicating that strong social bonds and belonging can enhance how adolescents perceive themselves.

Table 15: *Regression analysis of EPOCH to predict Interpersonal* Problems

SOCIETIES		B	Std. Error	T	Sig.
Matrilineal Society	Engagement	.505	.454	1.111	.267
	Perseverance	1.086	.440	2.470	.014*
	Optimism	-.729	.510	-1.430	.153
	Connectedness	-.452	.447	-1.011	.313
	Happiness	-2.024	.485	-4.177	<0.001**
Patrilineal Society	Engagement	2.184	.564	3.872	<0.001**
	Perseverance	.017	.582	.028	.977
	Optimism	-.202	.587	-.344	.731
	Connectedness	-1.338	.530	-2.525	.012*
	Happiness	-2.858	.542	-5.272	<0.001**

*** Significant at 0.01 level*

**Significant at 0.05 level*

Results from the above table show that happiness significantly predicts lower interpersonal problems in both matrilineal and patrilineal societies, suggesting that happiness helps adolescents maintain healthier and more stable relationships. In matrilineal societies, perseverance is associated with higher interpersonal problems, which may indicate that being overly focused on goals could lead to impatience or frustration in social situations. In patrilineal societies, engagement significantly predicts more interpersonal problems, possibly because highly involved adolescents may face social conflicts when their priorities or activities interfere with group expectations or relationships. Additionally, connectedness predicts lower interpersonal difficulties in patrilineal societies, indicating that a strong sense of belonging and support can buffer against relationship challenges.

Across both cultural contexts, the EPOCH dimensions significantly predicted various forms of psychopathology, though the strength and direction of associations varied. Happiness was the strongest and most consistent negative predictor in both matrilineal and patrilineal societies, highlighting their protective roles in reducing behavioural and emotional problems. Lesinskienė (2025) emphasized happiness as an essential attribute for adolescent mental health, showing its strong correlations with better physical and mental wellness. The study underlined the role of happiness in reducing risky behaviors and promoting healthy lifestyle habits that protect against mental disorders. Additionally, Fredrickson & Joiner (2002) and Keyes (2006) have been cited in related literature for demonstrating how positive emotions like happiness build psychological resilience and reduce vulnerability to mental health disorders.

Perseverance was another key predictor in both matrilineal and patrilineal societies. Perseverance was linked to lower levels of several disorders, but in patrilineal societies, it was found to be associated with more interpersonal difficulties, possibly due to the more hierarchical nature of social interactions. This is consistent with research indicating that gender roles were more flexible in the matrilineal society and more clearly defined in the patrilineal society, with gender relations described as more egalitarian among the Khasis (matrilineal societies) and more hierarchical among the Chakhesangs (Patrilineal Societies) (Ellena &

Nongkynrih, 2017). Connectedness reduced conduct disorder in both groups, though in matrilineal societies it was also associated with greater anxiety and PTSD, while in patrilineal societies it helped protect against suicide risk, self-concept difficulties, and interpersonal problems. This may indicate that matrilineal adolescents who have strong maternal support might experience heightened sensitivity to others' expectations or stress within interpersonal dynamics. While connectedness promotes positive development, excessive involvement from extended family networks can sometimes contribute to emotional strain. Adolescents may feel overwhelmed by frequent inquiries or pressured to repeatedly discuss their traumatic experiences, potentially intensifying stress and hindering recovery. Studies by Nguyen et al. (2015) indicate that social support from family and friends generally acts as a protective factor, buffering against many mental health problems. However, their studies also reveal that not all social interactions within families are beneficial. Excessive social control, restrictive family environments, or negative interactions within close-knit or collectivist families can sometimes lead to emotional exhaustion, increased stress, and worsened psychological outcomes.

Engagement showed no significant prediction of psychopathology in matrilineal societies, but in patrilineal society it was positively associated with multiple problems, suggesting that within more hierarchical social structures (Ellena & Nongkynrih, 2017), higher engagement may lead to overinvolvement or relational imbalances that increase vulnerability. Supporting this, a longitudinal study by Ljubin-Golub and Rijavec (2019) found that while academic flow characterized by focused attention and intrinsic enjoyment in academic tasks, was protective against academic burnout, excessive involvement in non-academic leisure activities was linked to increased burnout among college students. This highlights how too much focus or imbalance in engagement, particularly when leisure overtakes important responsibilities, can lead to life imbalance and psychological strain.

Optimism was the least predictive overall, though it was protective against certain disorders in matrilineal societies and linked to increased academic problems in patrilineal ones. This paradox may occur because adolescents who are overly optimistic about the future tend to underestimate the effort required for academic attainment, leading to lower achievement. Studies show that unrealistic optimism can result in poor self-assessment and under-preparation, negatively affecting academic performance (Lewine & Sommers, 2016; Tetzner & Becker, 2018).

Hence the hypothesis , EPOCH will not significantly predict psychopathology is partially accepted.

VI.II. SUMMARY AND CONCLUSION

This study demonstrates that cultural context plays a crucial role in shaping how positive psychological traits influence adolescent mental health in Meghalaya. Across both matrilineal and patrilineal societies, happiness and perseverance consistently emerged as strong protective factors against a wide range of behavioural and emotional problems, making them valuable targets for resilience-building initiatives. However, the influence of other EPOCH dimensions, such as connectedness, engagement, and optimism, varied by lineage system, sometimes offering protection and at other times increasing vulnerability, as seen with connectedness predicting higher anxiety in matrilineal groups and engagement being linked to heightened problems in patrilineal societies.

These findings underscore the importance of culturally sensitive mental health strategies that both strengthen universal protective traits and address context-specific risks. By integrating local values, gender norms, and family structures into prevention and intervention programmes, schools, families, and policymakers can more effectively support adolescent resilience and reduce mismatches between culturally diverse contexts and mental health initiatives. At the same time, these results should be interpreted with caution, as the study is a cross-sectional design that captures only associations rather than causal relationships. Furthermore, the relatively low variance limits the strength of conclusions regarding the predictive power of EPOCH across cultural settings, highlighting the need for future longitudinal and mixed-methods research to deepen understanding.

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