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A School Based Intervention Study of Urban and Rural Indigenous High School Students in the East Khasi Hills District, Meghalaya

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Abstract

This research explored the career preparation status, career belief patterns, and academic achievement motivation of 492 male and female high school students in rural and urban areas of the East Khasi Hills District, Meghalaya, India. In addition, the study examined the relative effectiveness of two versions of the Jiva model of career counselling: a Three-Day career counselling programme and a One-Day career counselling programme. A Measure of Guidance Impact (MGI) along with an Index of Effectiveness (IE) were applied to understand the outcomes of the interventions. A pre- and post-test with a waiting list control design was employed. While both the Three-day and the One-day programmes brought change, the Three-Day programme was seen to bring greater gains. The career preparation status of participating students was most responsive to intervention, change in negative career beliefs was less so. Findings are reported keeping in view current developmental theories and the social, political, academic, and cultural factors prevalent in the collectivist and matrilineal society in Meghalaya.

Keywords: career counselling, career orientations, high school

Introduction

There is a growing need for theoretically sound, culturally and psychologically validated, career counselling services to be made available at scale for use in the Indian situation (Arulmani & Nag-Arulmani, 2006). India is one of the world's fastest growing economies and a decade of economic reforms has widened occupational possibilities. It is against this background that the crucial need for effective career preparation services for youth has surfaced.

A key factor that comes into play when planning large scale systemic interventions is the question of duration of the intervention. Schools have their own curricular requirements to fulfil within the academic year. Introducing a non-curricular intervention often brings up the question of its perceived interference with the completion of the curriculum. Hence, the tendency often is to reduce the duration of such interventions. While integrating career guidance within the curriculum and embedding career counselling into the school system has been a common recommendation(e.g., International Youth Federation (IYF), 2011; Nongbri, 1996; Organization for Economic Cooperation and Development (OECD), 2003) there is a

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need to find a solution to circumvent the difficulty of acceptance of such non-curricular programmes. This study, therefore, addresses two specific gaps in the literature. First, the issue of embedding a career counselling programme within the school system within the constraints of time availability: For this, the efficacy of a shorter programme (one-day duration) is compared to the efficacy of a more intensive programme (three-day duration). Second, there is no record of any career guidance intervention having been tested in Meghalaya. This study examines the issues involved by focusing on communities indigenous to Meghalaya.

Grade 10 in India is a crucial stage that determines further career development. This stage becomes all the more special in the case of tribal populations whose cultures are unique. Of particular interest to this paper are the specificities of the tribal populations located in the East Khasi Hills district of Meghalaya in Northeast India. A number of factors influence the career development of young people in this area. This includes socio-economic background, the forces of rural-urban migration, poor educational outcomes and, socio-political issues such as low infrastructure development and insurgency (Meghalaya, n.d.). Interesting also are the local sociocultural practices. The main tribes in this region, namely the Khasis, the Jaiñtias, and the Garos follow a matrilineal social structure. Part of this structure is to pass the inheritance of ancestral property to the youngest daughter (*kakhatduh* in the Khasi language). Customs such as this could strongly influence a young person when she makes career decisions and could in fact take decision making out of her hands.

Keeping these realities in view, the objectives of the study were formulated as follows:

1. To determine the career preparation status, academic achievement motivation level, and career belief patterns among high school students.
2. To identify the relative effectiveness of two models of a school-based career counselling intervention (a Three-Day Intervention and a One-Day Intervention) among high school students in both rural and urban settings.

Theoretical Overview of Key Constructs

Developmental Theories and Career Preparation Status

A particularly relevant construct from developmental theories is that of readiness to engage with career development tasks. Various theories have described the process and defined related constructs. Here, it is important to note that these processes could manifest differently in different contexts. Therefore, while the process of circumscription (Gottfredson, 1981), for instance, may be palpable, it may not occur in the manner that it has been described in the context of middle class communities in the United States. Social organization in Meghalaya is collectivist and major decisions are primarily taken by parents or elders on behalf of the child. Similarly, compromise may connote alignment with what is beneficial to the family, rather than one's personal wishes. Keeping these various socio-cultural influences in view, Arulmani (2006) argues that it is important to understand the career preparation status of the career chooser and the possible unique variations in career developmental lag (Arulmani & Nag-Arulmani, 2006) that students in different contexts, including in Meghalaya, could manifest. The notion of career preparation status could also be an indication of career maturity (Super, 1957) and degree of decidedness about one's career plan (Kleiman & Gati, 2004). Keeping these developmental concepts in mind, career preparation status in this study has been defined as the individual's readiness to make career decisions (Arulmani, 2006).

Academic Achievement Motivation and Career Goals

Atkinson (1965) explains that, relating to academics, when a task is

perceived to have no relationship to future achievement endeavours, achievement motivation is not aroused. The future goals referred to by this theory of Achievement Motivation are self-defining goals that provide incentive for action (Ryan & Deci, 2000) which include important personal aspirations such as striving for a career or job. While these lines of argument have developed within non-indigenous cultures, certain special patterns of motivation seem to characterise indigenous peoples. For example, Australian aboriginal students were found to learn better and were motivated when they worked as a group and helped each other rather than competing to be ahead of the others (Milliken, 2005). What motivates students in Meghalaya and the factors that influence the academic achievement motivation of students requires further investigation especially because the school drop-out rate in Meghalaya is alarming. The past five years (2013-2017) recorded a total of 109,495 drop outs across all the districts (The Shillong Times, 2017). Furthermore, the average pass percentage in the Grade 10 matriculation examinations across 2013-2017 has been recorded as 56.31% in the Meghalaya Board of Secondary Education (MBOSE, 2013-2017) which is lower than many states in India. Against this background, this study adopted the definition of academic achievement motivation as students' energy and drive to learn, work effectively, and achieve their potential at school (Martin, 2012).

Career Beliefs

Krumboltz (1994) who originally coined the term career belief said, "The way in which people make career decisions depends on what they believe about themselves and the world of work" (p. 424). Conducted in 2005, across 6,530 students in 15 regions and 8 languages, the Work Orientations and Responses to Career Choices – Indian Regional Survey (WORCC-IRS, Arulmani & Nag-Arulmani, 2006) explored Indian young people's work and career orientations. A significant finding was that as socioeconomic (SES) increases, the negativity in career beliefs decreases. This study defined career belief as"…a conglomerate of attitudes, opinions, convictions, and notions which seem to cohere together to create mindsets and beliefs that underlie people's orientation to the idea of a career" (Arulmani & Nag-Arulmani, 2004, p. 107). In Meghalaya, there has been little or no research conducted on the impact of career beliefs on career preparation.

Cultural Influences

Oyserman, Coon, and Kemmelmeier (2002) explained that the core elements depicting individualism are the emphasis placed upon personal uniqueness and independence, whereas duty to the in-group and maintaining the status quo are the main constituents of collectivism. Brown and Lavish (2006) reported that the collectivist orientation of Native American students, for instance, show significantly greater salience to value expectations for their family and community service roles compared with their work roles. The mediation of culture, therefore, emerges as a critical factor to be considered in the formulation and delivery of career development services. The Cultural Preparation Process Model (CPPM, Arulmani, 2014) argues that the manner in which an individual and group are prepared by their culture (cultural preparedness) explains their engagement with work and career development. However, there is little or no empirical evidence available to explain the cultural implications of career counselling in Meghalaya.

Career Counselling Interventions

There are several types of career guidance interventions provided for young people. Dykeman et al. (2001), for example, compiled a list of career guidance interventions in the United States which were categorized into (1) Work Based Interventions, (2) Advising Interventions, (3) Introductory Interventions, and (4) Curriculum Based Interventions. With a view to testing the effectiveness of an established intervention, developed specifically for India, this study selected the Jiva Approach to Career Guidance and Counselling (Arulmani, 2010). A review of

the literature indicated that this is perhaps the only complete system of career guidance developed specifically for the Indian cultural context. Further details are given in the following sections.

Several variables were of interest to this study: Socioeconomic status (SES), gender, and location (rural urban). SES is known to mediate career development orientations (e.g., Arulmani & Nag-Arulmani, 2004). The literature also has constantly indicated that strong interactions are present between gender and career development (Creed & Patton, 2003). It is also well known that orientations to career development vary in rural and urban areas (Bennett, 2008; Lyngdoh, 2000).

Based on these indications in the literature, career preparation status, career beliefs, and academic achievement motivation were selected to be the dependent variables in this study.

Method

This study tested two interventions: a Three-Day intervention and a One-Day intervention. Each group had a corresponding, matched control group. The Three-Day experimental condition followed the standardised design of the Jiva intervention. The One-Day experimental condition was a modified version of the standardised design. Hence, the impact of the duration of the interventions on the dependant variables was examined. A pre-test post-test quasi-experimental design was selected. Prior to the start of the main study, a pilot study was conducted. Two hundred high school boys and girls in five randomly selected schools in the East Khasi Hills District of Meghalaya participated in the Pilot study. The outcomes of this pilot contributed to the compilation of the tools for the main study.

Tools

Career Preparation Status Questionnaire (CPSQ) (Arulmani, 2006). The CPSQ gathers information related to five categories: General Orientation (GO), Self-Understanding (SU), Understanding the World of Work (WOW), Career Preparation (CP), and Career Alternative (CA). CPSQ scores are classified into five levels: low, low average, average, high average and high career preparation status. A three-month test-retest of the questionnaire showed a reliability coefficient of .92.

Academic Achievement Motivation Test (AAMT) (Sharma, 2005).

The AAMT tool has been designed to identify how students' level of motivation in relation to school based academic experiences and situations linked to studies. The AAMT classifies scores into three levels: low motivation, average motivation, high motivation. A three-month test-retest of the test showed a reliability coefficient estimate of .79 for boys and .80 for girls. Permission for translation from the original Hindi version to English was sought and granted by the test publisher (National Psychological Corporation, Agra, India).

Career Belief Patterns Scale (CBPS) (Arulmani, 2011). The CBPS assesses career belief patterns on the themes of Control and Self Direction, Culture and Norms, Fatalism, Persistence, Prestige and Social Status, Proficiency, and Self Worth. The scale comprises 40 vignettes reflecting real life career development situations. Separate forms have been developed for boys and girls. The CBPS has a 6-week test–retest reliability of .84. Percentile norms are presented as low, low-average, average, high-average, and high, where low refers to the lowest range and high refers to the highest range of negativity tapped by the CBPS.

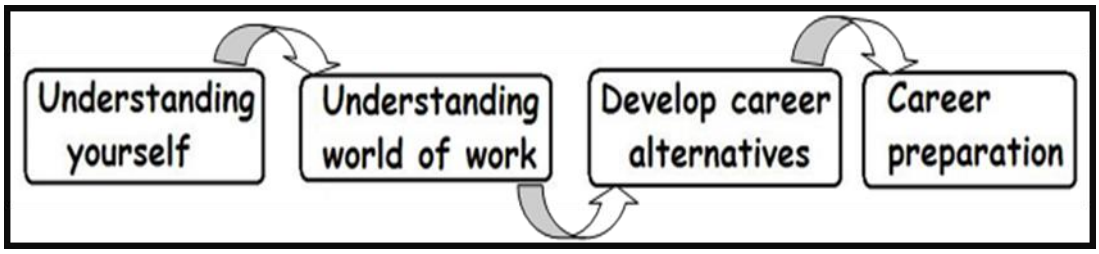
Measure of Guidance Impact (MGI) (Christophers, Stoney, Lines, & Kendall, 1993). The MGI addresses four categories of guidance widely used within the guidance service: decision making, opportunity awareness, transition skills, and self-awareness. The MGI gives an overall score measuring the level of career awareness that clients demonstrate after receiving guidance. The scale is anchored

to a five point rating scale for each item. MGI has a test-retest reliability of .89.

Intervention

The Jiva Approach to Career Guidance and Counselling (Arulmani, 2010) was adapted for this study. All the components of the Jiva approach (e.g., assessment tools, career dictionaries, career information, and student activities) have been developed with specific reference to India. Jiva draws upon three theoretical positions, namely: Career Developmental Theory (Gottfredson, 1981; Super, 1957), Social Cognitive Theory (Bandura, 2001), and the Cultural Preparation Process Model (Arulmani, 2014). Jiva is an activity based, student-mediated approach that delivers career guidance using a four-step process referred to as the Career Discovery Path as shown in Figure 1 (Arulmani, 2010).

Figure 1: The Jiva Career Discovery Path



Source: Arulmani, G. and Nag-Arulmani, S. (2004).

Self-understanding. A wide range of activities help the student to identify his/her interests, aptitudes, and potentials. In addition, the student engages in activities that are designed to sharpen his/her sensitivity to how career beliefs could hamper or hinder the realisation of personal potentials.

Understanding the World of Work. Students are exposed to 164 career names, career definitions, tasks related to that career, and educational pathways leading to that career. This section arguably sharpens students' sensitivity to the meaning and purpose of work, the tasks associated with a given career, and skills for making decisions.

Developing Career Alternatives. Based on their learning from activities in the earlier sections of the intervention, students identify three to five careers that are closely related to their identified potentials and preferences.

Career Preparation. Finally, students learn the skills to optimise their career alternatives by developing five-year career paths, and examining ways to cope with career barriers and achieve their career goals.

The workshop includes individual and group activities. The assessment is based on a mixed methods approach that incorporates psychometric devices with qualitative information related to the student's culture, academic history, and accomplishments. The interpretation of the results of the assessment is individual-based and person-centred. Interpretation of assessment results, for example, takes an intra-personal approach rather than a statistically derived, normative inter-personal measurement.

The Three-Day programme followed the standard design of the Jiva programme providing all components of the curriculum and running for approximately 12 hours. The modified One-Day programme kept all the major components but ran a smaller number of activities under each, and the duration was for 6.5 hours.

Qualifications of Facilitator

The intervention in all participating schools was facilitated exclusively by the

researcher who was a post graduate in Counselling Psychology. The researcher was also a trained practitioner of the Jiva method with extensive experience in applying the method at the grassroots level in Meghalaya. A paid assistant was recruited for the purpose of translating concepts which were difficult to understand in the local language. The assistant was a post graduate in Counselling Psychology and a certified facilitator of the Jiva programme.

Methods of Analysis

A combination of descriptive and inferential statistical procedures was used for data analysis. The paired sample t-test and the independent t-test were used for each of the dependent variables examined, and within the various independent variables. A series of One-way Analysis of Variance (ANOVA) was used to determine the main effect of intervention type and the interaction effects with a selection of variables of interest.

The research was also interested in the magnitude of change effected by the interventions. Data from the post-intervention analyses indicated that pre-intervention and post-intervention scores did not have equal variances and equal reliability. Post-intervention test scores were not normally distributed. The literature indicates that in such situations the difference score maybe a more suitable level of analysis (e.g., Dimitrov & Rumrill, 2003). Hence, the difference score (T2 minus T1) was used for all analyses. For comparison across the different scales, the raw score was converted to a percentage score.

One further metric to analyse the outcomes of the interventions was the Index of Effectiveness (IE) developed specifically for the purposes of this study. An index of effectiveness draws upon the norms of a given scale to delineate levels of improvement. For instance, the norms of the Career Preparation Status Questionnaire (CPSQ) are presented as five levels of preparedness: Low, Low Average, Average, High Average, and High. As per the IE formulation, the increase of score value from one level to the next level is given a value of 1, an increase of score value across two levels receives a value of 2, and so on. This value has been termed as Index of Effectiveness (IE) in this writing. The IE was computed as follows. The norms of each scale were used as the frame of reference to compute IE. Each score-range was given one IE value. Movement from one score-range to the next score-range was identified as an increase of one IE value.

Sampling

The list of all 156 high schools in the region was obtained from the office of the Inspector of Schools, East Khasi Hills District, Meghalaya. There were 26 schools which indicated that they had already received career guidance in some form in the preceding year most of which was in the form of one-hour talks on particular careers or advice on how to prepare for competitive exams; 21 schools had less than 10 students; 40 were poor functioning schools. The remaining 59 schools comprised the Pool from which the sample was randomly drawn (see details in Table 1). The size of the sample was derived keeping a confidence interval of 2.82 and confidence level of 95% to ensure that the 59 schools would be sufficiently represented. Stratified random sampling following the lottery method was used to select the sample for each subgroup. The research started with 21 schools (N = 798). However, attrition occurred when schools withdrew from the study (sometimes overnight or in some cases during the intervention). The reasons for withdrawal included a change in school schedules, having many other activities during the year, the long duration required for testing and intervention for the study, and an unexpected bandh (closure of public services). Finally, therefore, a total of 492 students from 14 schools completed the study.

Table 1. An Overview of the Demographic Details of the Sample Pool, and the Sample Before and After Attrition.

Sample	Number	Mean Age (SD)	Urban			Rural			Low SES					Middle SES					High SES				
			N (%)	Boys N (%)	Girls N (%)	N (%)	Boys N (%)	Girls N (%)	N (%)	Boys N (%)	Girls N (%)	Urban N (%)	Rural N (%)	N (%)	Boys N (%)	Girls N (%)	Urban N (%)	Rural N (%)	N (%)	Boys N (%)	Girls N (%)	Urban N (%)	Rural N (%)
1	2360	15.4	1200	589	611	1160	606	554	964	423	541	538	426	681	343	338	351	330	715	377	338	396	319
		(1.3)	(50.8)	(24.9)	(25.9)	(49.2)	(25.6)	(23.5)	(40.8)	(17.9)	(22.9)	(22.7)	(18.1)	(28.9)	(14.5)	(14.3)	(14.9)	(14.0)	(30.3)	(16.0)	(13.3)	(16.8)	(13.5)
2	798	16.1	406	198	208	392	198	194	321	144	177	165	156	244	119	125	125	119	233	120	113	138	95
		(1.2)	(50.8)	(24.8)	(26.0)	(49.1)	(24.8)	(24.3)	(40.2)	(18.0)	(22.2)	(20.7)	(19.5)	(30.6)	(15.0)	(15.7)	(15.7)	(15.0)	(29.2)	(15.1)	(14.1)	(17.3)	(11.9)
3	492	15.9	291	134	157	201	107	94	182	87	95	113	69	147	67	80	79	68	163	87	76	99	64
		(1.4)	(59.1)	(27.2)	(32.0)	(41.0)	(21.7)	(19.1)	(34.0)	(17.7)	(19.3)	(23.0)	(14.0)	(29.9)	(13.6)	(16.3)	(16.0)	(13.8)	(33.1)	(17.7)	(15.4)	(20.1)	(13.0)

Note:
1: The Sample Pool after the first round of exclusion = 59 schools.
2: Sample selected by lottery = 21 schools.
3: Final sample after attrition = 14 schools.

Table 2. Distribution of the Sample across the Experimental and Control Conditions (14 schools, N = 492)

Condition	Number (%)	Urban			Rural			Low SES					Middle SES					High SES				
		N (%)	Boys N (%)	Girls N (%)	N (%o)	Boys N (%)	Girls N (%)	N (%)	Boys N (%)	Girls N (%)	Urban N (%)	Rural N (%)	N (%)	Boys N (%)	Girls N (%)	Urban N (%)	Rural N (%)	N (%)	Boys N (%)	Girls N (%)	Urban N (%)	Rural N (%)
One-Day Group	156 (31.7)	88 (17.9)	40 (8.1)	48 (9.8)	68 (13.8)	36 (7.3)	32 (6.5)	51 (10.4)	19 (3.9)	32 (6.5)	38 (7.7)	13 (2.6)	61 (12.4)	26 (5.3)	35 (7.1)	39 (7.9)	22 (4.5)	44 (9.0)	23 (4.7)	21 (4.3)	29 (5.9)	19 (3.9)
Three-Day Group	151 (30.7)	92 (18.7)	39 (7.9)	53 (10.8)	59 (12.0)	24 (4.9)	35 (7.1)	45 (9.1)	24 (4.9)	21 (4.3)	27 (5.5)	18 (3.7)	51 (10.4)	23 (4.7)	28 (5.7)	16 (3.2)	35 (7.1)	55 (11.2)	37 (7.5)	18 (3.7)	38 (7.7)	17 (3.5)
Control Group	185 (37.6)	111 (22.6)	55 (11.2)	56 (11.4)	74 (15.0)	47 (9.6)	27 (5.5)	86 (17.5)	44 (9.0)	42 (8.5)	48 (9.8)	38 (7.7)	35 (7.1)	18 (3.7)	17 (3.5)	24 (4.9)	11 (2.2)	64 (13.0)	27 (5.5)	37 (7.5)	32 (6.5.)	28 (5.7)
Total	492 (100.0)	291 (59.1)	134 (27.2)	157 (32.0)	201 (41.0)	107 (21.7)	94 (19.1)	182 (34.0)	87 (17.7)	95 (19.3)	113 (23.0)	69 (14.0)	147 (29.9)	67 (13.6)	80 (16.3)	79 (16.0)	68 (13.8)	163 (33.1)	87 (17.7)	76 (15.4)	99 (20.1)	64 (13.0)

Note:

- One-Day Group = 6 schools.
- Three-Day Group = 4 schools.
- Control Group = 4 schools.
- Percentages have been calculated against the total number of students (N = 492) in the study.

Findings

Demographic details of the sample are given in Table 2. There are several trends in the data, the key amongst them being the following: In the area of career preparation status, rural students show better scores, and strong gender difference in career preparation is not recorded. In the area of Career Belief Patterns, urban male students from higher SES have higher negativity in their career belief patterns. In the area of reported academic achievement motivation, girls report higher levels of motivation than boys, and urban students report higher levels than rural students.

Pre-Intervention

Career Preparation Status Questionnaire (CPSQ). The mean scores of this sample fell in the lowest category of career preparation status as per the norms of the scale (M = 18.27, SD = 9.6). A series of independent-samples t-tests were conducted to compare the CPSQ scores by gender, urban-rural residence, and socio-economic status. There was no significant difference in the career preparation status scores of the male versus female students, t(490) = 299, p = .765. There was a significant difference in the CPSQ mean score of rural students versus urban students, t(490) = 2.542, p = .011, with the urban group showing lower CPSQ mean scores than their rural counterparts. One-way ANOVA revealed that there was no significant difference in CPSQ scores for the low, middle, and high socioeconomic status groups, F(2,489) =.789, p =.455.

Career Beliefs Pattern Scale (CBPS). As per the norms of the CBPS Questionnaire, the Mean score of this sample (M = 129.96, SD = 33.9), places the group in the category of High negativity. On an independent-samples t-test, a significant difference was noted in the mean career belief scores of the male versus female students, t(490) = 2.843, p = .005, with male students showing a higher mean score than females. There was also a statistically significant difference in the career belief scores between students from rural areas versus students from urban areas, t(490) = 2.746, p= .006, with rural students showing higher mean score than urban students. One-way ANOVA showed that there was no significant difference noted in the career belief patterns of students from the groups with low, middle, and high socioeconomic status, F(2,489) = 1.547, p= .214.

Academic Achievement Motivation Test (AAMT). The mean score of this sample (M=23.14, SD=4.54) places it in the category of Low motivation in the AAMT. An independent-samples t-test showed that there was a significant difference by gender, t(490) = -3.5, p= .000 with females showing a higher mean score. A one-way ANOVA showed no statistically significant difference in scores obtained by the low, middle, and high socioeconomic status groups: F(2,489)=.789, p=.455.

Table 3 shows that the difference between the mean scores of the Three-Day experimental group and Three-Day control group was not statistically significant at T1on the CPSQ t(235) = -2.263, p= .996; CBPS t(235) = -2.216, p= .940; and AAMT t(235) = -6.083, p= .836. Similarly, mean scores of the One-Day experimental and One-Day control groups were not significantly different on the CPSQ t(253) = -1.460, p= .145; CBPS t(253) = -.101, p= .920; and AAMT t(253) = - 1.768, p= .079. These results indicate that before the beginning of the intervention, the experimental and control groups for the Three-Day as well as the One-Day intervention conditions were at similar levels of career preparation, career belief patterns, and academic achievement motivation.

Table 3: Scores obtained by the Intervention and Control Groups at Pre-Intervention (Time 1)

Tests[1, 2]	Mean Scores Obtained (SD)				
	Three-Day Intervention Group (N = 151)	Waiting list Control Group (N = 86)	One-Day Intervention Group (N = 156)	Waiting list Control Group (N = 99)	**Interpretation of Scores as per the norms of each scale**
CPSQ	17.07 (9.76)	19.63 (7.47)	17.79 (10.72)	19.68 (8.93)	*Low* Career Preparation Status which is the lowest category in the CPSQ.
CBPS	119.87 (35.27)	129.91 (30.25)	135.79 (31.25)	136.22 (35.56)	*High* negativity which is the highest category in the CBPS
AAMT	21.62 (4.66)	25.33 (4.23)	22.88 (4.61)	23.94 (3.56)	*Low* motivation which is the lowest category in the AAMT

Note1: CPSQ = Career Preparation Status Questionnaire. High scores indicate readiness in making career decisions. CBPS = Career Belief Patterns Scale. High CBPS scores indicate high negativity. AAMT = Academic Achievement Motivation Test. High scores indicate high motivation in academic motivated in aspects related to his/her academic experience.
Note 2: CPSQ = Career Preparation Status Questionnaire (Min-Max Score = 0-86). CBPS = Career Belief Patterns Scale (Min-Max Score = 40-280). High CBPS scores indicate high negativity. AAMT = Academic Achievement Motivation Test (Min-Max Score = 0-38).

Post-Intervention

A Difference Score was computed by subtracting each participating student's score on a test at time 2 (T2) from that student's performance on the same test at time 1 (T1). The Mean Difference Scores showed that career preparation status and academic achievement motivation increased and negativity of career beliefs decreased for both the Three-Day and One-Day experimental groups when compared with their respective control groups (see columns 2 and 5, Table 4). In order to test the efficacy of the interventions a series of independent-samples t-tests were conducted. The test was found to be significant for the measures of career preparation status, career belief scores, academic achievement motivation scores, and the measure of guidance impact (for t-tests and p values see Table 4). These findings suggest that the students in both the Experimental groups have benefitted irrespective of whether they received a Three-Day career counselling programme or a One-Day programme.

Table 4: Mean Difference Scores (T2 in percentages minus T1 in percentages) of the Experimental and Control Groups with t-tests

Tests[2]	**Three-Day Experimental Group Mean Difference Score N = 151**	**Control Group Mean Difference Score N = 86**	***t*-test[1]**	**One-Day Experimental Group Mean Difference Score N = 156**	**Control Group Mean Difference Score N = 99**	***t*-test[1]**
CPSQ	40.75	-1.88	30.784**	23.08	-3.06	17.631**
CBPS	- 47.57	29.88	-15.100**	-12.08	3.24	12.539**
AAMT	10.31	.98	15.842**	5.33	1.41	9.229**
MGI	54.99	.65	14.056**	21.94	-.22	26.803**

Note 1: ** = p<.001.
Note 2: CPSQ = Career Preparation Status Questionnaire (Min-Max Score = 0-86). CBPS = Career Belief Patterns Scale (Min-Max Score = 40-280). High CBPS scores indicate high negativity. AAMT = Academic Achievement Motivation Test (Min-Max Score = 0-38). MGI = Measure of Guidance Impact (Min-Max Score = 1-125).

A primary objective of this study was to examine the efficacy of a shorter duration programme given the common need in schools to not divert too much time away from curricular work to career counselling. In order to compare the relative efficacy of the three-day programme against the one-day programme, a series of independent-samples t-test was conducted (t-tests and p values see Table 5). This test showed a statistically significant difference in the Mean Difference scores on the CPSQ with the Three-Day intervention group showing higher scores than the One-Day intervention group. These results indicate that while the One-Day intervention has contributed to an increase in students' career preparation scores, the Three-Day intervention led to a greater increase in scores. Similarly, a statistically significant difference is seen in the Mean CBPS Difference score where the Three-Day intervention group recorded lower scores than the One-Day intervention. This indicates that the Three-Day intervention was more effective in reducing the negativity in students' career beliefs. A similar advantage of attending the Three-Day intervention is seen on the Academic Motivation Test (AAMT).

Table 5: Comparison of the Three- and One-Day Conditions: Significance of the Difference of the Mean Difference Scores (T2 minus T1) in percentages with t-tests

Tests[2]	Three-Day Intervention Mean Difference Score N = 151	One-Day Intervention Mean Difference Score N = 156	*t*-test[1]
CPSQ	40.75	23.08	11.909**
CBPS	-15.92	-12.08	-2.998**
AAMT	10.31	5.33	9.974**
MGI	54.98	21.94	28.808**

Note 1 ** = p<.001.
Note 2:CPSQ = Career Preparation Status Questionnaire (Min-Max Score = 0-86). CBPS = Career Belief Patterns Scale (Min-Max Score = 40-280). High CBPS scores indicate high negativity. AAMT = Academic Achievement Motivation Test (Min-Max Score = 0-38). MGI = Measure of Guidance Impact (Min-Max Score = 1-125).

The positive outcomes of the Three-Day intervention compared to the One-Day intervention as shown in Table 5 are also seen in the acquisition of career development skills. These skills were measured by the Measure of Guidance Impact (MGI) and include skills for decision making, opportunity awareness, transition skills, and self-awareness.

Index of Effectiveness (IE). To further examine the nature of effectiveness of the intervention, an Index of Effectiveness (IE) was used. While there were some students who showed no change after the intervention, the overwhelming trend was towards positive change. The highest change in career preparation status was seen towards IE level 3 (42.4% of students). Also as compared to the other scales, the CPSQ showed the fewest number of students (0.7%) with no change. By contrast, although change was seen across the four IE levels, negativity in career belief seemed to be the most resistant to change with the largest number of students (39%) showing no change.

Discussion

Career Preparation Status

Rural students are better prepared. The data at hand is not sufficient to explain this finding. This phenomenon deserves further investigation particularly since this survey was conducted in a socioeconomic context where the rate of rural-urban migration is

increasing. Interpreted from the perspective of career development theory (Super, 1957), the pre-intervention scores show that a large proportion of this sample has not successfully completed the career developmental task of exploration. This could point to low career maturity. However, it must be kept in mind that this assessment was conducted on a sample that had received almost no career guidance inputs. Hence, this finding could be taken as indicative of a key career guidance target: Provide services that aim at improving students' readiness to engage with career development tasks.

No strong gender difference in career preparation. This finding is perhaps because of certain cultural features that characterise Meghalaya. As an indigenous community practicing a matrilineal structure of society, Meghalaya shows greater gender equity, although this claim needs further empirical support. An observation from focus group discussions among career counsellors in Meghalaya was that most young girls were keen in their desire to receive education (Kharkongor & Albert, 2014). Mishra (2007) had already observed that girls are not commonly discouraged from pursuing education

Circumscription and compromise among the sample differ from what has been postulated. The process of circumscription may not occur in the manner that has been described by Gottfredson (1981) who says that by the age 14 or so, children are expected to engage in an increasingly conscious search for occupations that would be compatible with their more personal, psychological selves. In a collectivist social structure, like in Meghalaya, circumscription may occur as a group rather than an individual process. Accordingly, compromise, maybe associated with aligning group opinion. This is especially so for the case of the last daughter (kakhatduh), who is expected to look after the parents and learn to manage their properties. Kharkongor and Albert (2014) further reported that although girls were motivated for career exploration, being away from the family or the state is something that the girls do not seem to prefer. It is important that career guidance practitioners in Meghalaya consider family background and expectations when facilitating the career decision-making process.

Career Belief Patterns

Rural students have higher negativity in their career belief patterns. In a seemingly expected trend, the high negativity scores of the sample may be partly explained by the educational, social, political, and economic challenges faced by students.

Urban male students from high SES have higher negativity in their career belief than their female counterparts. Although in comparison, the male students from the rural area show higher negativity in their career beliefs pattern, this finding is noteworthy. That an urban male student belonging to a high SES experiences more pressure to maintain the status of the family in relation to career choices and career related decisions (Arulmani, 2014) and on making money (Duffy & Sedlacek, 2007) seem to be possible explanations of this finding.

Academic Achievement Motivation

Females are more motivated. This finding seems to concur with a related study conducted by Gneezy, Leonard, and List (2009) which stated that the Khasi female sample showed much higher levels of competitiveness and leadership qualities compared to Khasi men. Mukhim (2011) also indicated that in Meghalaya many women are entrepreneurs. They can be seen managing shops or being a contractor, selling and buying gold among many others. Although the data at hand may not be sufficient to be conclusive, the trends seem to point towards a possibility that the matrilineal structure of the society in Meghalaya may be a strong factor influencing the higher motivation found among female sample in this study. On the other hand, this finding seems to suggest that career counsellors in these communities need to further investigate the

factors that may be influencing the lower motivation among the boys.

Urban students are more motivated than the rural students. The seemingly better facilities in Shillong compared to rural areas and possibly more academic pressure among the students in the city may be reasons for this difference. However, a student commented, "I will definitely become a businessman whether I pass my high school or not" (Male, 15 years old, rural). The student further mentioned that many coal traders in this region are not highly educated so one does not need to be highly educated to become a businessman. This student may not be motivated to pursue further education, but he is motivated to become a businessman. Measuring such a student's motivation using traditional forms of assessment would yield a low academic achievement motivation score whereas the student may actually be highly motivated. A career counsellor in such a context would need to query the influences on motivation.

Duration of the Interventions

It is clear that the longer intervention spanning over three days has had better outcomes than the shorter version which is completed within one school day. It is possible that removing certain components of the original version affected the impact of the programme but the data available do not allow a pinpointed comment on the exact nature of gaps created in the adaptation process. At the same time, resource and time limitations could cause school managements to opt for shorter duration interventions. It is, therefore, important to find the balance between duration of intervention and time/resource limitations to achieve the best outcomes.

Recommendations

Provide Career Guidance Services

Career counselling programmes. The programmes employed in this study were found to have facilitated the students effectively in the identification of their career interests and talents. The provision of career information was found to be useful for students to gain a wider understanding of the world of work. Hence, career counselling programmes should be provided among male and female high school students in both rural and urban areas in Meghalaya.

Duration of intervention and approaches to delivery of programme. The Three-Day intervention programme was found to have yielded better results as seen in the study compared to the One-Day programme. With the Three-Day programme, more activities were provided for further assimilation of the concepts. However, considering all the challenges experienced by the researcher during the study, as well as the suggestions from the head of schools and teachers, incorporating career counselling throughout the school calendar could be more feasible instead of a consolidated programme. However, for schools which may not be able to employ a full time counsellor, workshop approaches might be more feasible.

Teaching methodology. The Jiva career counselling programme tested in this study was designed with several group activities as well as individual work. This method of delivery found a high level engagement with the sample. Some of the students exclaimed, "I like building the poster and I enjoyed working with my group" (Male, Class 10, urban). Furthermore, it is recommended that translation of the materials to the vernacular may also scale up the suitability of the activities.

Include other stakeholders

Meeting the parents of the students. Discussion with parents could address underlying family career beliefs and thereby facilitate better career preparation. This meeting could be integrated with the Parent-Teacher meeting, if the school has such a system in place already.

Inclusion of the wider community, teacher, headman and others for

building awareness. The teachers of this sample and also local headmen expressed their willingness to receive awareness programmes related to careers. A headman said, "Young people should think of their future. We can organize career programmes for the whole locality" (Headman, urban). Future career related activities may be planned using the community-based participatory approach where all stakeholders can be included in the planning and implementation.

Build Capacity

Capacity building for the delivery of career guidance services is urgently felt. One teacher mentioned, "We need training, Miss. Students ask us all the time about careers" (Female teacher, Rural). A headman also asked, "Can we send our Seng Samla (Youth) leaders for training also?"(Headman, rural). Should such training be introduced, trainers should be familiar with tribal worldviews, become knowledgeable of the traditional occupations existing in the location.

Development of Policy

The government and policy makers should take notice of the findings in this study and may incorporate the following points in the education policy:

- Creation of a post for school counsellor. The latest draft of the Guidance and Counselling Guidelines for States (National Council of Educational Research and Training [NCERT], 2015) mentions that although attempts have been made over the years, the status of the state level guidance agencies and counselling cell are either not established or are performing a limited role.

- There should be a mandate that career counselling be incorporated in the academic calendar. By doing so, the students will have access to the service throughout the year.

- Career Mela sponsored by the government may be incorporated in annual activities of every district of Meghalaya. A headman exclaimed, "I will approach the District Council for an annual district wide career programme" (Headman, Rural).

Conclusion

The pre-intervention findings showed the lowest levels of career preparation status, academic motivation and highest negativity in the career beliefs of the sample. In contrast, despite the many difficulties encountered during the execution of the study, the post-intervention scores revealed remarkable changes for the better in these scores. These findings point to the relevance and efficacy of the career guidance intervention and serve as a timely message for urgent need for delivery of relevant career counselling services in a largely tribal region like the Northeast India and in Meghalaya in particular.

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