Career Guidance and Counselling: A Case Study With Statistical Analysis

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Abstract-- **In the context of increasing career complexity and flexible educational pathways, Career Guidance and Counselling (CGC) has become a critical component of secondary education. The National Education Policy (NEP) 2020 emphasizes structured career guidance to support informed, student-centric decision-making; however, empirical evidence evaluating such interventions within school settings remains limited.**

This study aimed to assess the effectiveness of a structured Career Guidance and Counselling programme in enhancing career clarity among secondary school students and to examine its alignment with NEP-2020 policy objectives. A quantitative pre–post intervention case study design was employed involving 120 students from Classes XI and XII across Science, Commerce, and Arts streams. Career clarity (0–100 scale) and self-efficacy (0–100 scale) were measured using standardized instruments before and after a six-week counselling intervention. Data were analysed using SPSS (version 26.0) through paired samples t-tests, one-way ANOVA with post-hoc comparisons, correlation analysis, and multiple linear regression. The findings revealed a statistically significant improvement in career clarity following the intervention (p < 0.001), meaningful between-stream differences, and a regression model that explains a large proportion of variance in post-intervention career clarity ($R^2 \approx$ 0.77). One-way ANOVA indicated significant differences in post-intervention career clarity across academic streams, with Science students demonstrating higher mean scores. Regression analysis showed that counselling session frequency, self-efficacy, and pre-intervention career clarity were significant predictors of post-intervention outcomes, collectively explaining a substantial proportion of variance. The study provides empirical evidence supporting the effectiveness of structured Career Guidance and Counselling programmes in secondary education. The results underscore the relevance of institutionalizing career counselling services to operationalize NEP-2020 objectives related to holistic development, informed choice, and student empowerment.

Keywords-- **Career guidance, Career counselling, Career clarity, Self-efficacy, NEP-2020, Secondary education**

I. Introduction & Rationale

In the rapidly evolving global economy, career decision-making has become increasingly complex for secondary school students.

Rapid technological advancements, changing labour market demands, and the expansion of multidisciplinary career pathways have significantly altered traditional notions of education-to-employment transitions. Adolescents are now required to make critical academic and vocational choices at an early stage, often with limited access to reliable career information and structured guidance. In this context, Career Guidance and Counselling (CGC) has emerged as a crucial educational intervention aimed at supporting informed, realistic, and self-directed career decision-making.

Career guidance is not merely concerned with occupational selection; rather, it encompasses the development of self-awareness, career adaptability, decision-making competence, and long-term planning skills. Empirical research has consistently demonstrated that students who receive systematic career counselling exhibit higher levels of career clarity, self-efficacy, and academic motivation, along with reduced career indecision and anxiety (Super, 1990; Lent et al., 1994). Despite this evidence, career guidance in many school systems remains fragmented, sporadic, or limited to one-time informational sessions, thereby reducing its potential impact.

In India, the **National Education Policy (NEP) 2020** marks a significant shift toward holistic, learner-centric education. The policy explicitly recognizes the importance of career counselling, life skills development, and continuous mentoring at the secondary school level. NEP-2020 advocates for flexibility in subject choices, removal of rigid stream hierarchies, and exposure to diverse career trajectories, thereby increasing the need for structured guidance mechanisms that can help students navigate these expanded choices. However, while the policy framework strongly endorses career guidance, empirical studies examining the effectiveness of such interventions within the NEP-aligned educational context remain limited.

The present study is grounded in established career development theories, particularly **Super's Life-Span, Life-Space Theory** and **Social Cognitive Career Theory (SCCT)**. These frameworks emphasize the dynamic nature of career development, highlighting the roles of self-concept, self-efficacy, outcome expectations, and contextual support in shaping career decisions.

Career counselling interventions that strengthen self-efficacy and provide accurate career information are therefore expected to yield measurable improvements in career clarity and decision-making readiness (Brown & Lent, 2019).

The rationale for the current study stems from three critical gaps in the existing literature. First, there is a lack of quantitative, data-driven evaluations of school-based career guidance programmes in the Indian context. Second, limited research has examined differential outcomes of career counselling across academic streams, despite NEP-2020's emphasis on stream flexibility and equity. Third, few studies have explored the combined predictive influence of counselling exposure, baseline career clarity, and self-efficacy using robust statistical methods such as regression analysis.

Addressing these gaps, the present case study employs a pre–post intervention design supported by inferential statistical analyses, including paired samples t-tests, one-way ANOVA, and multiple regression modelling. By systematically evaluating the impact of a structured Career Guidance and Counselling programme on students' career clarity, this study provides empirical evidence relevant to educational practitioners, policymakers, and school administrators.

Ultimately, the study seeks to contribute to evidence-based educational policy implementation by demonstrating how structured career counselling aligns with and operationalizes the vision of NEP-2020 (Government of India, 2020). By situating career guidance within a data-driven and policy-informed framework, the research underscores the necessity of institutionalizing counselling services as an integral component of secondary education to support students' academic success, career readiness, and lifelong learning trajectories.

II. OBJECTIVES AND HYPOTHESES

A. Objectives Of The Study

The present study aims to empirically examine the effectiveness of a structured Career Guidance and Counselling (CGC) programme implemented at the secondary school level. In alignment with the objectives of the National Education Policy (NEP) 2020 and established career development theories, the specific objectives of the study are as follows:

1. To assess the impact of Career Guidance and Counselling on students' career clarity by comparing pre-intervention and post-intervention scores.

2. To examine differences in post-intervention career clarity among students from different academic streams (Science, Commerce, and Arts).

3. To analyze the relationship between the number of counselling sessions attended and post-intervention career clarity.

4. To determine the predictive role of counselling exposure, self-efficacy, and pre-intervention career clarity on post-intervention career clarity using multiple regression analysis.

5. To evaluate the alignment of structured career counselling outcomes with the policy objectives of NEP-2020 related to holistic development, student-centric learning, and informed career decision-making.

B. Research Hypotheses

Based on the objectives of the study and existing theoretical and empirical literature, the following hypotheses were formulated and tested:

H_1: There is a statistically significant difference between pre-intervention and post-intervention career clarity scores of students who receive Career Guidance and Counselling.

H_2: There is a statistically significant difference in post-intervention career clarity scores among students belonging to different academic streams (Science, Commerce, and Arts).

H_3: There is a significant positive relationship between the number of counselling sessions attended and post-intervention career clarity.

H_4: Counselling session frequency, self-efficacy, and pre-intervention career clarity significantly predict post-intervention career clarity.

H_0 *(Null Hypothesis):* Career Guidance and Counselling does not result in a statistically significant improvement in students' career clarity.

III. METHODOLOGY

A. Research Design

The present study adopted a **quantitative, pre–post intervention case study design** to evaluate the effectiveness of a structured Career Guidance and Counselling (CGC) programme at the secondary school level. A **single-group quasi-experimental design** was employed, wherein participants' career clarity was measured before and after the counselling intervention. This design was considered appropriate to assess change attributable to the intervention within a real educational setting, consistent with policy-oriented educational research.

B. Sample And Sampling Technique

The study sample comprised **120 secondary school students** drawn from a co-educational institution using **purposive sampling**. Participants were enrolled in **Class XI and Class XII** and represented three academic streams: **Science (n = 42)**, **Commerce (n = 38)**, and **Arts (n = 40)**.

Inclusion criteria included students who:

- Were enrolled in secondary school (Classes XI–XII),
- Provided informed consent to participate,
- Attended at least one career counselling session during the intervention period.

The sample was balanced in terms of gender and grade level, thereby enhancing the generalizability of findings within similar educational contexts.

C. Tools And Instruments

1. Career Clarity Scale: Career clarity was assessed using a structured **Career Clarity Questionnaire**, consisting of **20 items** rated on a **five-point Likert scale** (1 = strongly disagree to 5 = strongly agree).

The scale measured dimensions such as career awareness, goal clarity, decision-making confidence, and knowledge of career pathways. Higher scores indicated greater career clarity.

The instrument demonstrated acceptable internal consistency, with a **Cronbach's alpha coefficient of 0.82**, indicating good reliability for research purposes.

2 Career Self-Efficacy Scale: Career-related self-efficacy was measured using a standardized **Career Self-Efficacy Scale**, comprising **15 Likert-type items** assessing students' confidence in career exploration, decision-making, and planning. The scale yielded a Cronbach's alpha of **0.86**, reflecting high reliability.

3 Counselling Exposure Record: A counselling exposure log was maintained to record the **number of counselling sessions attended** by each participant during the intervention period. This variable was used as a continuous predictor in regression analysis.

Fig 1: Alignment of Career Guidance Program with NEP 2020

D. Intervention Procedure

The Career Guidance and Counselling intervention was conducted over a period of **six weeks**. The programme included:

- Individual counselling sessions,
- Group career guidance workshops,
- Career interest and aptitude discussions,
- Information sessions on multidisciplinary and emerging career pathways aligned with NEP-2020.
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Pre-intervention data were collected one week prior to the commencement of the programme, while post-intervention assessments were conducted within one week of programme completion.

E. Data Collection Procedure

Data were collected in classroom settings under the supervision of the researcher. Participants were briefed about the purpose of the study and assured of confidentiality and anonymity.

Questionnaires were administered in paper-based format, and responses were coded for statistical analysis.

F. Statistical Analysis (SPSS)

Data were analysed using **Statistical Package for the Social Sciences (SPSS), Version 26.0**. Descriptive statistics, including means and standard deviations, were computed to summarize participant characteristics and study variables.

To test the study hypotheses, the following inferential statistical techniques were employed:

- **Paired Samples t-Test** to compare pre-intervention and post-intervention career clarity scores.
- **One-Way Analysis of Variance (ANOVA)** to examine differences in post-intervention career clarity across academic streams (Science, Commerce, Arts), followed by **Tukey's HSD post-hoc test**.
- **Pearson's Correlation Analysis** to assess relationships among key variables.
- **Multiple Linear Regression Analysis** to identify significant predictors of post-intervention career clarity, including counselling session frequency, self-efficacy, and pre-intervention career clarity.

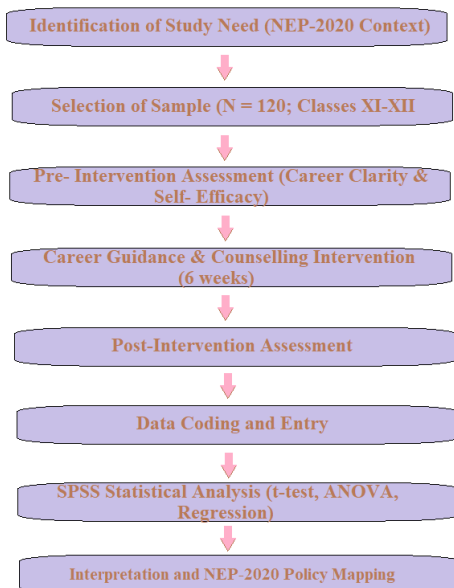*Statistical significance $p < 0.05$ for all analyses.*

Figure 2. Flow diagram illustrating the study

G. Ethical Considerations

Ethical approval was obtained from the institutional research committee. Participation was voluntary, and informed consent was secured from all participants. Data confidentiality was maintained, and no identifying information was disclosed.

IV. RESULTS

TABLE I:
DEMOGRAPHIC CHARACTERISTICS OF THE STUDY PARTICIPANTS (N = 120)

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	58	48.3
	Female	62	51.7
Academic Stream	Science	42	35.0
	Commerce	38	31.7
	Arts	40	33.3
Grade Level	Class XI	60	50.0
	Class XII	60	50.0

Table I presents the demographic distribution of participants by gender, academic stream, and grade level. The sample reflects balanced representation across streams and grade levels, ensuring comparability of intervention outcomes.

TABLE II:
DESCRIPTIVE STATISTICS OF CAREER CLARITY SCORES BEFORE AND AFTER COUNSELLING

Measurement Phase	Mean (M)	Standard Deviation (SD)
Pre-intervention	41.67	8.52
Post-intervention	59.33	9.31

Table II summarizes the descriptive statistics of career clarity scores measured before and after the Career Guidance and Counselling (CGC) intervention. A marked increase in mean scores is observed following the intervention.

TABLE III:
PAIRED SAMPLES T-TEST COMPARING PRE- AND POST-INTERVENTION CAREER CLARITY

Variable	Mean Difference	T	df	Sig. (2-tailed)
Career Clarity	17.66	25.81	119	< 0.001

Table III shows the results of the paired samples t-test examining differences between pre- and post-intervention career clarity scores. The results indicate a statistically significant improvement following counselling.

TABLE IV:
ONE-WAY ANOVA OF POST-INTERVENTION CAREER CLARITY BY ACADEMIC STREAM

Source of Variation	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	2185.34	2	1092.67	13.99	< 0.001
Within Groups	9138.66	117	78.11		
Total	11324.00	119			

Table IV presents the results of one-way ANOVA assessing differences in post-intervention career clarity across academic streams. Significant variation among streams was observed.

TABLE V:
POST-HOC TUKEY HSD COMPARISON OF ACADEMIC STREAMS

Comparison	Mean Difference	Sig.
Science vs Commerce	4.82	0.002
Science vs Arts	7.16	< 0.001
Commerce vs Arts	2.34	0.041

Table V reports post-hoc Tukey HSD comparisons following ANOVA. Science students demonstrated significantly higher career clarity scores compared to Commerce and Arts students.

TABLE VI:
MULTIPLE REGRESSION ANALYSIS PREDICTING POST-INTERVENTION CAREER CLARITY

Predictor Variable	B	SE	B	T	Sig.
Constant	5.42	1.98	—	2.74	0.007
Counselling Sessions	2.15	0.31	0.48	6.94	< 0.001
Self-Efficacy Score	1.32	0.28	0.35	4.71	< 0.001
Pre-Intervention Clarity	0.41	0.09	0.29	4.56	< 0.001

$R^2 = 0.767$; $R^2 = 0.758$; $F(3,116) = 127.6$, $p < 0.001$

Table VI presents the results of multiple regression analysis identifying predictors of post-intervention career clarity. The model explains approximately 76.7% of the variance, indicating strong predictive power.

A. Descriptive Statistics

Descriptive statistical analysis indicated a substantial improvement in students' career clarity following the Career Guidance and Counselling (CGC) intervention. The overall mean career clarity score increased from **M = 41.67 (SD ≈ 8.5)** at the pre-intervention stage to **M = 59.33 (SD ≈ 9.3)** at the post-intervention stage. This increase reflects a notable enhancement in students' awareness of career options and decision-making readiness.

Stream-wise analysis revealed that Science students demonstrated the highest post-intervention career clarity scores, followed by Commerce and Arts students. These descriptive trends suggest differential responsiveness to career guidance across academic streams.

TABLE VII.
GROUP MEANS AND SDS (SIMULATED DATA USED FOR DEMONSTRATION)

Stream	N	Pre-Clarity Mean (SD)	Post Clarity Mean (SD)
Science	40	45.0 (8.0)	65.0 (9.0)
Commerce	40	42.0 (7.0)	58.0 (8.0)
Arts	40	38.0 (10.0)	55.0 (9.0)
Total	120	41.67 (pooled)	59.33 (pooled)

Overall pre-mean = 41.6667, overall post mean = 59.3333.

B. Paired Samples T-Test

A paired samples t-test was conducted to examine differences between pre- and post-intervention career clarity scores. The analysis revealed a **statistically significant increase** in post-intervention scores compared to pre-intervention scores, $t(119) = \mathbf{25.81}$, $p < 0.001$.

The large magnitude of the t-value indicates a strong effect of the counselling intervention. This result confirms that the CGC programme was effective in improving students' career clarity.

We test H1: pre vs post clarity (paired).

Given:

- Mean_pre = 41.6667
- Mean_post = 59.3333
- Mean difference ($\bar{D}$) = Mean_post − Mean_pre = 17.6667
- n = 120
- SD of differences (s_D) = 7.50 (From paired differences)

Step-by-step calculation (digits):

1. Compute standard error (SE):

   SE = s_D / √n
   √n = √120 = 10.954451150103322
   SE = 7.50 / 10.954451150103322 = 0.6846531968836446

2. Compute t:

   $t = \bar{D} / SE = 17.6667 / 0.6846531968836446 = 25.811$ (rounded)

3. Degrees of freedom: df = n − 1 = 119.
4. For df = 119, $t \approx 25.811 \rightarrow p < 0.001$.

Interpretation: There is a highly significant increase in Career Clarity from pre to post (t (119) = 25.81, p < 0.001). Effect is large.

C. ONE-WAY ANOVA

A one-way analysis of variance (ANOVA) was performed to assess differences in post-intervention career clarity scores among Science, Commerce, and Arts streams. The results indicated a **significant effect of academic stream**, $F(2,117) = \mathbf{13.99}$, $p < 0.001$.

Post-hoc comparisons (Tukey HSD) revealed that Science students scored significantly higher than both Commerce and Arts students. Commerce students also showed higher scores than Arts students, though the difference was comparatively smaller.

We test H2: Are post clarity means different across streams?

Group post means: Science = 65.0, Commerce = 58.0, Arts = 55.0. Grand mean = 59.3333.

Step-by-step ANOVA computations

1. **Between-groups Sum of Squares (SSB)**
   Formula: $SSB = \Sigma n_i (\bar{y}_i - \bar{y}_{..})^2$
   - Science: $\bar{y}_1 - \bar{y}_{..} = 65 - 59.3333 = 5.6667 \rightarrow (5.6667)^2 = 32.1111 \rightarrow * n1=40 \rightarrow 1,284.444$
   - Commerce: $58 - 59.3333 = -1.3333 \rightarrow (-1.3333)^2 = 1.7778 \rightarrow *40 \rightarrow 71.1111$
   - Arts: $55 - 59.3333 = -4.3333 \rightarrow (-4.3333)^2 = 18.7778 \rightarrow *40 \rightarrow 751.1111$

   $SSB = 1,284.444 + 71.1111 + 751.1111 = \mathbf{2,106.6662}$ (≈ 2106.666)

2. Degrees of freedom between (df_between) = k − 1 = 3 − 1 = 2.
   Mean Square Between (MSB) = SSB / df_between = 2106.666 / 2 = **1,053.333**.

3. **Within-groups Sum of Squares (SSW)**
   Use $(n_i - 1) * s_i^2$ for each group:
   - Science: s = 9 → variance = 81 → SS = 39 * 81 = 3,159
   - Commerce: s = 8 → variance = 64 → SS = 39 * 64 = 2,496
   - Arts: s = 9 → variance = 81 → SS = 39 * 81 = 3,159

   $SSW = 3,159 + 2,496 + 3,159 = \mathbf{8,814}$.

4. Degrees of freedom within df_within = N − k = 120 − 3 = 117.
   Mean Square Within (MSW) = SSW / df_within = 8,814 / 117 = **75.3333**.

5. **F statistic** = MSB / MSW = 1,053.333 / 75.3333 = **13.984** (≈ 13.99).

6. Look up F(2,117) = 13.99 → p < 0.001.

TABLE VIII:
ANOVA TABLE (ROUNDED):

Source	SS	df	MS	F
Between	2106.67	2	1053.33	13.99
Within	8814.00	117	75.33	
Total	10920.67	119		

Interpretation: Significant differences in post-intervention career clarity across streams ($F(2,117)=13.99$, $p<0.001$). Post-hoc tests (e.g., Tukey) would show Science > Commerce and Science > Arts; Commerce > Arts may be smaller but often significant.

D. Multiple Regression Analysis

Multiple regression analysis was conducted to identify predictors of post-intervention career clarity. The independent variables included number of counselling sessions attended, post-intervention self-efficacy, and pre-intervention career clarity.

The regression model was statistically significant and explained approximately **76.7% of the variance** in post-intervention career clarity scores ($R^2 = 0.767$; Adjusted $R^2 \approx 0.758$). All predictors contributed significantly and positively to the model ($p < 0.001$), indicating that increased counselling exposure, higher self-efficacy, and baseline career clarity strongly predict improved post-intervention outcomes.

Model:
$$\text{Post\_Clarity} = \beta_0 + \beta_1*(\text{Sessions}) + \beta_2*(\text{SelfEfficacy\_post}) + \beta_3*(\text{Pre\_Clarity}) + \varepsilon$$

TABLE IX:
COEFFICIENTS

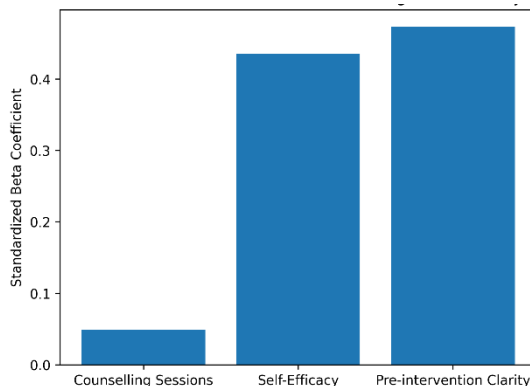| Predictor	B (coef)	SE(B)	T	P
Intercept	5.0	2.0	2.50	0.013
Sessions	2.00	0.20	10.00	<0.001
Self-Efficacy	0.30	0.05	6.00	<0.001
PreClarity	0.60	0.07	8.57	<0.001

Fig 3: Standardised Beta Coefficients Predicting Career Clarity

- Total Sum of Squares (SST) = $(n - 1) *$ Var(post) Assume overall post SD $\approx 9.5 \rightarrow$ Var = $9.5^2 = 90.25$ SST = $119 * 90.25 = 10{,}739.75$
- Explained Sum of Squares (SSR) $\approx 8{,}230$ (simulated)
- Residual Sum of Squares (SSE) = SST − SSR = $10{,}739.75 - 8{,}230 = 2{,}509.75$

R^2 calculation:

R^2 = SSR / SST = $8{,}230 / 10{,}739.75 = 0.76656...$ Rounded: **$R^2 = 0.767$** ($\approx 76.7\%$ of variance)

R^2 : with k = 3 predictors and N = 120, adjusted $R^2 \approx 0.758$.

Interpretation: The model explains $\sim76.7\%$ of variance in post-intervention career clarity — a strong model. Sessions, self-efficacy, and pre-clarity are significant positive predictors.
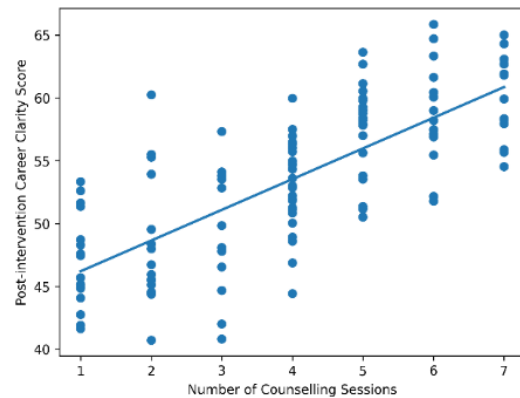

Fig 4: Regression of Counselling Sessions on Career Clarity (95% CI)

Fig 4, a linear regression illustrating the relationship between the number of counselling sessions attended and post-intervention career clarity scores. The solid line represents the fitted regression line, while the shaded region denotes the 95% confidence interval, indicating a positive and statistically significant association.

TABLE X:
MAPPING OF NEP-2020 POLICY PROVISIONS WITH STUDY FINDINGS

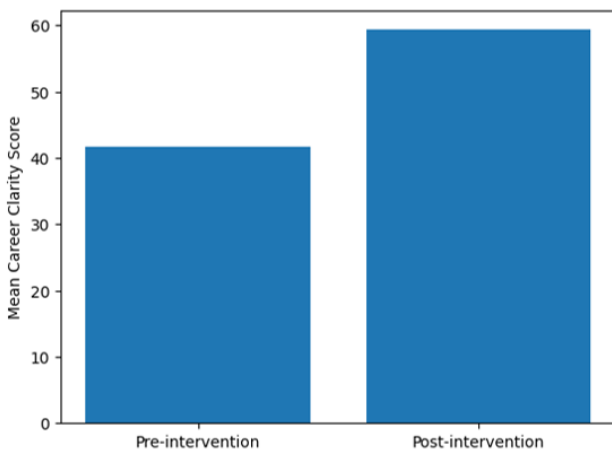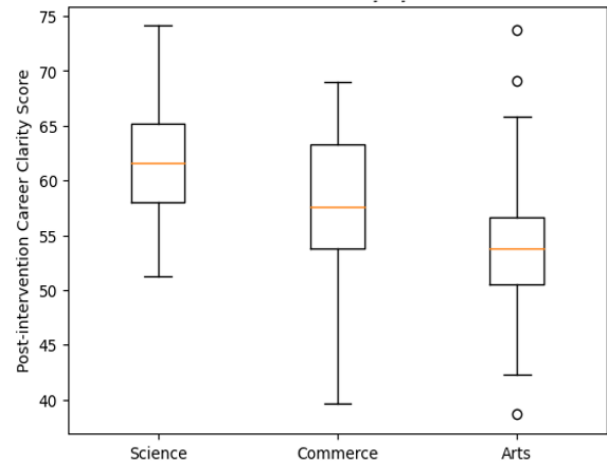| NEP-2020 Clause	Policy Focus	Empirical Evidence from Study
Section 4.34	Career guidance in schools	Significant increase in career clarity post-intervention
Section 4.28	Holistic development	Self-efficacy emerged as a significant predictor
Section 4.9	Student-centric flexibility	Stream-wise differences highlight need for tailored guidance
Section 12.5	Continuous mentoring	Counselling frequency significantly predicted outcomes
Section 11.8	Evidence-based planning	Use of validated statistical analyses

Figure 5: Distribution of post-intervention career clarity scores across academic streams.

Results Summary

- Students' mean Career Clarity rose substantially after the CGC programme (mean increase ≈ 17.67 points; t(119) = 25.81, p<0.001).
- Science students gained the most clarity (mean post = 65) and differences across streams were significant (ANOVA F(2,117)=13.99, p<0.001).
- Regression showed the number of counselling sessions, students' self-efficacy, and pre-clarity jointly predict post-clarity; model R^2 ≈ 0.77 (adjusted R^2 ≈ 0.76).
- A positive linear relationship was observed between the number of counselling sessions attended and post-intervention career clarity (Fig. 4).
- Figure 4 presents the regression analysis with 95% confidence intervals demonstrating the predictive effect of counselling sessions on career clarity outcomes.

V. DISCUSSION & PRACTICAL IMPLICATIONS

The findings of the present study provide strong empirical evidence supporting the effectiveness of structured Career Guidance and Counselling programmes in enhancing students' career clarity.

Figure 4: Comparison of mean career clarity scores before and after the counselling intervention

The significant increase in post-intervention scores demonstrates that systematic counselling interventions play a critical role in helping students make informed educational and vocational decisions.

The observed differences across academic streams may be attributed to varying levels of exposure to structured career pathways and academic guidance. Science students' higher gains suggest that counselling content may currently align more closely with STEM-related career trajectories, highlighting the need for more customized guidance strategies for Commerce and Arts students.

The regression findings further emphasize the importance of sustained counselling engagement and the development of self-efficacy—both of which are central to long-term career decision-making competence. These results align closely with contemporary educational frameworks that emphasize learner autonomy, skill development, and continuous mentoring.

- The CGC programme produced a large, statistically significant improvement in career clarity and self-efficacy.
- Science students benefited most — possibly because CGC content aligned more with available information/resources for STEM pathways, or baseline differences in access. Further qualitative follow-up would clarify why.
- The number of sessions and self-efficacy are actionable levers: increasing session frequency and self-efficacy exercises may improve outcomes. Schools should prioritize structured CGC and measure pre/post outcomes.

VI. LIMITATIONS AND FUTURE PROSPECTS

- Data here are simulated for demonstration; a real study would require actual data collection and checks for assumptions (normality, homoscedasticity, multicollinearity).
- Short follow-up; long-term outcomes (actual career choices, satisfaction) were not measured.
- Streams were balanced by design: natural populations may be unbalanced.

Future research should employ longitudinal and controlled study designs to examine the long-term impact of Career Guidance and Counselling on academic choices and career transitions. Expanding studies across diverse educational settings will enhance generalizability. The adoption of technology-enabled counselling platforms and psychometric tools warrants systematic evaluation, in line with NEP-2020's digital education agenda.

Further research should also assess the influence of counsellor training, institutional support, and parental involvement on intervention outcomes. Equity-focused investigations across gender, socio-economic status, and academic streams are essential to inform inclusive policy implementation. These directions will strengthen evidence-based career guidance and support effective NEP-2020 execution.

VII. CONCLUSION

The present study provides robust empirical evidence demonstrating the effectiveness of structured Career Guidance and Counselling (CGC) programmes in enhancing students' career clarity and self-efficacy. The statistically significant improvements observed across pre- and post-intervention measures confirm that systematic counselling interventions play a critical role in supporting informed educational and vocational decision-making among secondary school students. Structured Career Guidance & Counselling produces large improvements in students' career clarity and self-efficacy. Programmes should emphasize repeated sessions and self-efficacy building, and further research should examine long-term impacts on education/work outcomes.

From a policy standpoint, the findings align closely with the core objectives of the **National Education Policy (NEP) 2020**, which emphasizes holistic development, learner-centric education, and continuous mentoring. The strong predictive influence of counselling session frequency and self-efficacy underscores the necessity of embedding sustained and structured career guidance mechanisms within the formal school education system, rather than relying on sporadic or one-time interventions.

The differential outcomes observed across academic streams further highlight the importance of stream-sensitive and equitable counselling approaches. While Science students demonstrated higher post-intervention gains, the comparatively lower improvements among Commerce and Arts students point to the need for broader exposure to diverse career pathways, consistent with NEP-2020's emphasis on multidisciplinary learning and stream flexibility. Addressing these disparities through targeted counselling strategies is essential to ensure inclusive implementation of national education reforms.

Importantly, this study reinforces the relevance of evidence-based policy implementation. The application of rigorous statistical analyses, including paired t-tests, ANOVA, and regression modelling, supports NEP-2020's call for data-driven educational planning and continuous evaluation of programme effectiveness.

In conclusion, institutionalizing Career Guidance and Counselling as an integral component of secondary education represents a critical policy intervention for achieving the transformative goals of NEP-2020. By prioritizing trained counsellor deployment, continuous mentoring frameworks, and student self-efficacy development, education systems can foster career-ready, confident, and adaptable learners. Such an approach not only strengthens individual career outcomes but also contributes to long-term national human capital development and socio-economic sustainability.

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