9. SUMMARY AND CONCLUSIONS
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9.1. Summary and Findings:

According to Sadock and Sadock (2007), early adolescence from 11-14 years, is the period in which the most initial striking changes are noticed physically, attitudinally, and behaviorally. For boys, growth spurt often begins during this age, whereas, girls may have had rapid growth in the previous 1 or 2 years. At this time boys and girls begin to criticize usual family habits, insist on spending time with peers, with less supervision, have a greater awareness of style and appearance, and may question previously accepted family values. A new awareness of sexuality may be displayed by increased modesty, or embarrassment with their current physical development, or may exhibit increased interest in opposite sex. They engage in subtle or overt displays of their growing desire for autonomy with challenging behaviors towards authority figures and exhibit disdain for rules. Some even begin to experiment with cigarettes and alcohol because adolescence is largely a time of exploration and making choices and they are in the process of working towards an integrated concept of self. Research has shown that in overwhelming 20% of adolescent population suffer from psychological maladjustment, self-loathing, disturbance of conduct, substance abuse, affective disorders and other impairing psychiatric disorders begin to emerge during this stage of development. Adolescence is characterized by increased ability to complete challenges of academic, interpersonal and emotional tasks while searching for new interests, talents and social identities.

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Due to this rapid development coupled with inconsistent values at home and outside, peer pressure and media influence, the adolescent is at a great risk of alienation and maladjustment. These are indications of adolescent’s ineptness at negotiating certain hurdles. Therefore, interventions such as life skills education aim to provide them with necessary skills which are the need of the hour. They go a long way in enhancing the Overall psychosocial competence which is a requisite for optimal adjustment of well functioning individual.

Therefore, this study was designed to examine the impact of life skills education on adolescents’ psychosocial competence with the help of two fold objectives viz (1) To study experimentally the impact of life skills education on the enhancement of psychosocial competence of adolescents (2) To determine the influence of some of the demographic factors such as gender, number of siblings, order of birth, type of family, currently living with whom, father’s education, occupation and income as well as health problems of adolescents on their psychosocial competence. The research questions that arose out of these objectives are (1) Do the adolescents in experimental group differ significantly in all life skills and Overall psychosocial competence at all three phases (pre test, post test, post post test) from adolescents in control group due to life skills education? (2) Do the demographic factors such as gender, number of siblings, order of birth, type of family, currently living with whom, father’s education, occupation and income as well as health problems of adolescents influence significantly their psychosocial competence?
To answer the above stated questions a number of hypotheses were formulated and tested. The hypotheses are

**Ha₁**: Adolescents in control group do not differ significantly in all ten life skills and Overall psychosocial competence from pre test to post test phase (specific hypotheses Ha₁,₁ to Ha₁,₁₁)

**Ha₂**: Adolescents in control group do not differ significantly in all ten life skills and Overall psychosocial competence from post test to post post test phase (specific hypotheses Ha₂,₁ to Ha₂,₁₁)

**Ha₃**: Adolescents in control group do not differ significantly in all ten life skills and Overall psychosocial competence from pre test to post post test phase (specific hypotheses Ha₃,₁ to Ha₃,₁₁)

**Ha₄**: Adolescents in experimental group will have significantly higher all ten life skills and Overall psychosocial competence in post test compared to pre test phase (specific hypotheses Ha₄,₁ to Ha₄,₁₁)

**Ha₅**: Adolescents in experimental group will differ significantly in all ten life skills and Overall psychosocial competence from post test to post post test phase (specific hypotheses Ha₅,₁ to Ha₅,₁₁)

**Ha₆**: Adolescents in experimental group will have significantly higher all ten life skills and Overall psychosocial competence in post post test compared to pre test phase (specific hypotheses Ha₆,₁ to Ha₆,₁₁)

**Ha₇**: Adolescents in experimental group and those in control group do not differ significantly in all ten life skills and Overall psychosocial competence at the pre test phase (specific hypotheses Ha₇,₁ to Ha₇,₁₁)

**Ha₈**: Adolescents in experimental group will have significantly higher all ten life skills and Overall psychosocial competence than adolescents in control group at post test phase (specific hypotheses Ha₈,₁ to Ha₈,₁₁)
**Ha₅:** Adolescents in experimental group will have significantly higher all ten life skills and Overall psychosocial competence than adolescents in control group at post post test phase (specific hypotheses Ha₅₁ to Ha₅₁₁)

**Ha₁₀:** The demographic factors such as gender, number of siblings, order of birth, type of family, currently living with whom, father’s education, occupation and income as well as health problems of adolescents significantly influence their all ten life skills and Overall psychosocial competence (specific hypotheses Ha₁₀₁ to Ha₁₀₁₁)

Intervention package development was also taken up to best utilize the limited time available. A brief package encompassing all the ten life skills which consisted of 10 vignettes covering important issues and problems of adolescence through exercises and participatory activities was developed, since there was a need to develop a tool to measure the psychosocial competence, researcher formulated a large number of items which were subjected to pilot testing as well as expert evaluation. Statistical analysis and expert opinion helped in arriving at final version of the scale which consisted of 100 items and measured all ten life skill on 5 response categories. Both the versions of the scale were found to be highly reliable and valid.

Purposive sample of 101 boys and girls in 8th and 9th standard for experimental group was drawn from G.V. Joshi Rotary English Medium High School, Hubli, Karnataka State, India. Another group of similar strength and composition was drawn from Nirmala Thakkar High School, Hubli, Karnataka State, India as control group. With the help of inclusion exclusion criteria, care was taken to match the groups in all respects.
9.1.1. Measure used in the study:

(1) Psychosocial competence scale developed by Ajitha. Dindigal and Vijayalaxmi A. Aminabhavi (2007) was used to measure the psychosocial competence of adolescents of both the groups.

The experimental and control groups subjects also gave information regarding sex, number of siblings, type of family, currently living with whom, father's education, occupation, income as well as health problems on a separate demographic data sheet.

The psychosocial competence scale was administered on group basis for the whole class at a time and clarifications were provided when ever required. The obtained responses were taken as it is for further analysis. Frequency distributions were drawn for both the groups separately. Means and standard deviations computed are presented in tables and figures.

9.1.2. Within Control Group Comparison:

Paired sample ‘t’ test was used to statistically determine the significance of differences noted in the means of all life skills as well as Overall psychosocial competence. This was conducted for comparison between three phases of testing i.e. Pre test to post test; post test to post post test and pre test to post post test.
9.1.2.1. Comparison within Control group from Pre test to Post test Phase:

Adolescents of control group have shown significantly lower Problem solving, Decision making, Critical thinking, Creative thinking, Empathy, Self awareness, Coping with emotions, Interpersonal relation skills as well as Overall psychosocial competence at post test phase compared to the pre test phase.

Therefore, the obtained, verified and interpreted facts helps us to reject some specific hypotheses such as Ha1,1, Ha1,2, Ha1,3, Ha1,4, Ha1,5, Ha1,6, Ha1,8, Ha1,11 and accept only Ha1,7, Ha1,9 and Ha1,10.

9.1.2.2. Comparison within Control group from Post test to Post post test Phase:

Control group adolescents differed significantly among them selves from post test to post post test. They showed higher Problem solving skill, Decision making skill, Critical thinking, Creative thinking, Empathy and Overall psychosocial competence, whereas poorer skill in Interpersonal relations and Effective communication at post post test phase compared to post test phase.

Hence from the facts stated above, the specific hypotheses Ha2,1, Ha2,2, Ha2,3, Ha2,4, Ha2,5, Ha2,9, Ha2,10, and Ha2,11 are rejected and hypothesis Ha2,6, Ha2,7, and Ha2,8 are accepted. Therefore the main hypothesis number Ha2 is partly rejected and partly accepted.

9.1.2.3. Comparison within Control group from Pre test to Post post test Phase:

Adolescents of control group once again differed significantly when compared from pre test to post post test phase. They showed significantly lower levels of life skills like Problem solving, Creative thinking, Empathy, Self awareness,
Coping with stress; Interpersonal relation skill, Effective communication and Overall psychosocial competence at post post test compared to the pre test phase.

In view of the above stated facts, it becomes necessary to reject the specific hypotheses Ha3.1, Ha3.4, Ha3.5, Ha3.6, Ha3.8, Ha3.9, Ha3.10, and Ha3.11 and accept hypotheses Ha3.2, Ha3.3, Ha3.7. Thus the main hypothesis number Ha3 is partly accepted.

9.1.3. Comparison within Experimental Group:

Paired sample ‘t’ test was once again utilised to know the statistical significance of differences noted in the mean scores of all life skills and Overall psychosocial competence across three phases of testing. The comparisons were made in the following order:

- Pre test to post test phase.
- Post test to post post test phase.
- Pre test to Post post test phase.

9.1.3.1. Comparison within Experimental Group from Pre test to Post test phase:

The experimental group adolescents differed very significantly among themselves when compared from pre test to post test phase. Life skills education intervention was administered for this group between the two phases of testing. These adolescents showed higher life skills viz., Problem solving, Decision making, Critical thinking, Creative thinking, Empathy, Self awareness, Coping with emotions, Coping
with stress, Interpersonal relation skill, Effective communication and Overall psychosocial competence in post test phase.

The stated facts supports the acceptance of all the specific hypotheses (Ha4.1, Ha4.2, Ha4.3, Ha4.4, Ha4.5, Ha4.6, Ha4.7, Ha4.8, Ha4.9, Ha4.10, and Ha4.11) of the main hypothesis number Ha4.

9.1.3.2. **Comparison within Experimental Group from Post test to Post post test phase:**

Adolescents of experimental group differed significantly among them selves from post test to post post test phase. They showed significantly lower levels of skills such as Problem solving, Critical thinking, Creative thinking, and Empathy, Self awareness, Coping with emotions, Interpersonal relation skill, Effective communication, and Overall psychosocial competence at post post test phase. However, they did not differ significantly in Coping with stress skill at these two phases of testing.

The stated facts, enables acceptance of all the specific hypotheses of (Ha5.1, Ha5.2, Ha5.3, Ha5.4, Ha5.5, Ha5.6, Ha5.7, Ha5.8, Ha5.9, Ha5.10 and Ha5.11) Ha5 except Ha5.7 (Coping with stress skill).

9.1.3.3. **Comparison within Experimental Group from Pre test to Post post test phase:**

The experimental group adolescents continued to differ significantly among themselves when compared from pre test to post post test phase. It is found that, they showed significantly lower Problem solving at post post test phase. However, they showed significantly higher Empathy, Coping with emotions, Coping
with stress, and overall psychosocial competence at post post test phase in comparison to pre test phase.

The above stated facts supports partial acceptance of Ha. More specifically Ha.1, Ha.2, Ha.3, Ha.4, Ha.6, Ha.10 are rejected and the remaining hypotheses viz., Ha.5, Ha.7, Ha.9 and Ha.11 are accepted.

9.1.4. **Comparison between Experimental Group and Control Group Adolescents:**

Student’s test for independent sample was employed to statistically determine the significance of differences noted in mean scores of all the ten life skills and Overall psychosocial competence between the two groups across three phases of testing.

9.1.4.1. **Comparison between Experimental and Control Group Adolescents at Pre Test Phase:**

Adolescents of both the experimental and control groups differed from each other in few skills. It is observed that they did not differ in skills such as Decision making, Creative thinking, Empathy, Self awareness, Coping with emotions, Effective communication, and Overall psychosocial competence. Difference was noted in Problem solving skill, Critical thinking, Coping with stress, and Interpersonal relations skill.

The facts presented above helps us to reject few specific hypotheses Viz., Ha.1, Ha.3, Ha.8, and Ha.9 and accept the remaining ones- Ha.2, Ha.4, Ha.5, Ha.6, Ha.7, Ha.10 and Ha.11. Therefore, the main hypothesis no Ha. is partly accepted.
9.1.4.2. Comparison between Experimental Group and Control Group Adolescents at Post Test Phase:

The adolescents belonging to experimental and control groups differed significantly from each other at post test phase. That is, experimental group adolescents showed significantly higher skills and Overall psychosocial competence in comparison to control group adolescents at post test phase.

In view of the above stated facts, all the specific hypotheses (Ha8.1 to Ha8.11) have been accepted. In other words, the main hypothesis Ha8 is accepted in totality.

9.1.4.3. Comparison between Experimental Group and Control Groups Adolescents at Post Post Test Phase:

Significant differences were noted between adolescents of experimental and control groups. The adolescents of experimental group showed significantly higher Problem solving, Empathy, Coping with emotions, Coping with stress, Interpersonal relations skill, Effective communication and Overall psychosocial competence at post post test phase in comparison to adolescents of control group.

Therefore, keeping in mind the above stated facts, the specific hypotheses nos Ha9.2, Ha9.3, Ha9.4, and Ha9.6 are rejected and all the others- Ha9.1, Ha9.5, Ha9.7, Ha9.8, Ha9.9, Ha9.10 and Ha9.11 are accepted. Hence, the main hypothesis i.e. Ha9 is partly accepted and partly rejected.
9.1.5. Demographic Factors Significantly Contributing to All Ten Life Skills and Overall Psychosocial Competence of Adolescents:

To determine the significance of contribution made by certain demographic factors like gender, number of siblings, order of birth, type of family, currently living with whom, education, occupation and income of father and health problems of adolescents, to the ten life skills and Overall psychosocial competence of adolescents, Stepwise Multiple Regression Analysis was done. Results revealed the following facts:

1. Male adolescents are having higher Problem solving and Self awareness skills.

2. Adolescents living in nuclear families have significantly higher Decision making, Critical thinking, Empathy, Self awareness, Coping with stress, Interpersonal relations and Overall psychosocial competence of adolescents.

3. Adolescents who are currently living with grandparents only have significantly higher Coping with emotions skill.

4. Adolescents who are currently living with relatives only have significantly higher Empathy skill.

5. Adolescents whose father’s education is at lower levels i.e. up to PUC have shown significantly higher skill of coping with emotions.

6. Occupation of father has significantly contributed to decision making skill of adolescents, i.e. those adolescents whose fathers are professionals or working in government institutions or banks showed higher decision making skill.
The above stated facts make it imperative that hypothesis $H_{a10}$ is accepted partly.

9.2. Conclusions:

The facts and interpretations discussed in chapters 5, 6, 7, and 8 have warranted the researcher to come to the following conclusions.

1. Control group adolescents have significantly lower Problem solving, Critical thinking, Creative thinking, Empathy, Self awareness, Coping with stress, and Overall psychosocial competence at post test phase compared to pre test phase.

2. Adolescents of control group have significantly higher Problem solving, Decision making, Critical thinking, Creative thinking, Empathy, and Overall psychosocial competence at post post test phase compared to post test phase. They posses significantly lower Interpersonal relation skill and Effective communication skill at post post test phase.

3. Control group adolescents have significantly lower Problem solving, Critical thinking, Empathy, Self awareness, Coping with stress, Interpersonal relations skill, Effective communication and Overall psychosocial competence at post post test phase compared to pre test phase.

4. The adolescents of experimental group have significantly higher Problem solving, Decision making, Critical thinking, Creative thinking, Empathy, Self awareness, Coping with emotions, Coping with stress, Interpersonal relations skill, Effective communication and Overall psychosocial competence at post
test phase (after undergoing life skills education) when compared to pre test phase.

5. Adolescents of experimental group have significantly lower Problem solving, Decision making, Critical thinking, Creative thinking, Empathy, Self awareness, Coping with emotions, Interpersonal relations skill, Effective communication and Overall psychosocial competence at post post test phase (i.e. three months after cessation of life skills education intervention) when compared to post test phase.

6. At post post test phase adolescents of experimental group have significantly lower Problem solving compared to pre test phase. However, at the same time they have significantly higher Empathy, Coping with emotions, Coping with stress, and Overall psychosocial competence at post post test phase compared to pre test phase.

7. Adolescents of experimental group and control group have comparable or similar levels of Overall psychosocial competence at pre test phase.

8. Experimental group adolescents have significantly higher Overall psychosocial competence and all life skills at post test phase (due to life skills education intervention) when compared to adolescents of control group.

9. At post post test phase, adolescents of experimental group have higher overall psychosocial competence as well as Problem solving, Empathy, Coping with emotions, Interpersonal relations skill and Effective communication (even at three months after completion of intervention) when compared to adolescents of control group.
10. Male adolescents have significantly higher Problem solving and Self awareness skill than female adolescents.

11. Adolescents living in nuclear families have higher Decision making, Critical thinking, Empathy, Self awareness, Coping with stress, Interpersonal relations skill and Overall psychosocial competence than adolescents living in joint or broken families.

12. Adolescents living with grandparents only have significantly higher skills of Coping with emotions compared to those living with parents and relatives.

13. The adolescents who are living with relatives have higher Empathy skill than adolescents living with parents and grandparents.

14. Adolescents, whose fathers have limited education, have higher skill of Coping with emotions than adolescents whose fathers are more educated.

15. Adolescents, whose fathers are professionals or are working in governmental organisations or banks, have higher Decision making skill those adolescents whose father's occupations are at lower levels.

9.3. Suggestions for Further Research:

This indepth study has thrown light on, how development of psychosocial competence can be influenced through well designed interventions and also understand how certain skills fluctuate over a period of time (6 months). These findings points towards certain leads which can be further pursued in future studies to gain deeper understanding of how interventions work, which factors influence psychosocial competence and how outcome of an intervention can be measured. The
following suggestions are presented under various heads as they address different aspects of research.

9.3.1. Variables:

1. Since psychosocial competence encompass a number of skills, a detailed study of all the skills may become cumbersome. Therefore, a limited set of related skills e.g. problem solving and decision making, empathy and self awareness can be studied at a time to develop in depth understanding.

2. A number of various other skills too have been identified in the latest classification of essential life skills; they too can be studied extensively.

9.3.2. Instrument:

The instrument developed for the present study has ten components, which comprised of ten items for each skill. The grand total of these ten components is considered as total score of psychosocial competence. The following suggestions not only focus on use of constructed tool but also on developing various versions.

1. The present instrument consists of 100 items which is considered as lengthy by some adolescents; hence concised forms may be developed.

2. Instruments focusing exclusively on a particular life skill, which enables researcher to study it in depth, need to be developed.

3. Psychosocial competence can be measured on a battery of scales, instead of a single instrument. These scales are to be developed in such a way that they can be used independently as well as a component of the battery.
4. Besides paper and pencil method, other forms of assessment too can be taken up, such as task completion, evaluation of interactions through field observations and other qualitative methods.

5. Different versions for different age groups of children need to be developed, focusing on their specific needs and concerns and cultural background.

6. Norms need to be established to classify adolescents based on their overall psychosocial competence scores.

9.3.3. Intervention:

In the present study intervention was administered for the experimental group whose competence was almost similar to that of control group. The intervention developed for the study was for duration of three months. The following are wide ranging suggestions that focus on objectives, contents, method of delivery, duration and assessment of outcomes.

1. The finding that, effects of the intervention are short lasting shows that there is need for long drawn interventions which have lasting effect on competence of adolescents.

2. The intervention should clearly lay down objectives which will help researcher address specific issues that have direct influence on psychosocial competence. For example career planning, healthy coping, good study habits and health enhancing behaviours.

3. The contents of the intervention are dictated by its objectives, hence long duration interventions can address a gamut of problems / issues indepth.
4. The effectiveness of the intervention is very much dependent on the way it was administered. Since life skills education is fundamentally based on cooperative learning, role play and modeling too can be included as they are proven effective.

5. Process evaluation of the ongoing intervention adds to its effectiveness by directing researcher to take up requisite changes in the activities by making them more appealing.

6. Besides the measurement of changes in psychosocial competence over a period of time through pre test and post intervention assessment, it is also advisable to take up outcome measurement as they indicate the amount of assimilation and absorption of intervention provided. These help the researcher to understand how the adolescents are utilizing the skills learnt in specific contexts.

7. The researcher can involve both parents and teachers in planning, implementation and evaluation of intervention.

9.3.4. Target Group:

Adolescents from 8th and 9th standard were included in the present research, and as the findings indicate, they benefited very much from the intervention. Therefore, carefully planned interventions targeting specific groups have high potential for success.

1. Children as young as 8 years of age can be exposed to life skills intervention as their level of cognitive development (pre operational stage) permits
comprehension and adoption of skills taught. Early exposure provides them with advantage of being well prepared and equipped for forthcoming development and difficulties associated with them.

2. Before the administration of intervention, assessment of risk and protective factors influencing the individual’s competence is advisable. This enables researcher to differentiate the subjects at-risk and target them with interventions most suitable to their needs.

3. As children progress to adolescence some topics of the intervention activities (e.g. sexuality) can be administered separately for boys and girls. It removes the unease on part of the adolescents and the instructor.

4. To augment the effects of intervention, parents and teachers can be trained in handling difficulties presented by adolescents, and also clear their misconceptions about adolescence and replace it with empirical based facts about adolescent development.

5. Studies can also be conducted on physically challenged, juvenile delinquents, psychosocially deprived children (Children of mentally ill, alcoholics, street children, children living in orphanages, and those living in slums) and economically disadvantaged (Children living in poverty in urban and rural areas) with the aim of enhancing their psychosocial competence.

9.4. Recommendations:

1. As life skills training is proven effective, this programme should become part of curriculum or school activities.
2. Teachers of all governmental and private schools should be trained in imparting life skills education implementation by institutions such as NIMHANS, CIP etc.

3. Students studying in PUC also require life skills education as they are constantly under intense stress and have no clear idea about various career options available to them. They require training in study habits, persevering even in the face of adversity, having positive attitude, stress management, and career guidance.

4. Screening for mental health problems among school going children should become a routine as it is seen most often than not, it is children with poor psychosocial competence are more prone to mental health problems and poor academic performance.

5. Especially for those students who pursue studies in technical fields such as engineering, information technology, medicine etc are in need of this life skills package to develop their psychosocial competence along with their technical skills.