



# A correlational study “assessing the level of psychological hardiness & life satisfaction among rural farm workers”

Tinkal Sinha, Nupur Pharaskhanewala ,Tarannum Sarwar Dani, Gunjan Mishra, Ujjwal Sharma, Rahul Varma

Student (AIBAS) , Assistant Professor(AIBAS), Professor (AIBAS) ,HOI Amity Institute of Behavioral and Allied Sciences (AIBAS) ,Assistant Professor (AIBAS), Assistant Professor(AIBAS)

AMITY UNIVERSITY CHHATTISGARH.

## Abstract

Agriculture is a comprehensive term involves multitude of tasks include crop production together with land & water management, animal husbandry, fishery & forestry. Agriculture is one of the oldest professions. In research literatures , there are plethora of researches in psychological hardiness & Life satisfaction however farm families are relatively a unrecognized sample. India has achieved self-sufficiency at macro level but still facing challenges of high incidence of rural poverty. In order to develop a comprehensible picture of psychological hardiness & life satisfaction , the present paper will an objective attempt to explore relationship between these two psychological constructs among farm population of kanker district. Two self-report inventory i.e. Singh Psychological Hardiness Scale by Arun Kumar Singh (Hindi ) & Life Satisfaction scale by Q.G Alam & Ramji Shrivastava (Hindi) were administered among 106 farm work household group (aged 18-40 years) of Kanker district taken in account for purpose of research by stratified random sampling Correlational analysis have been done to explore how farm worker hardiness & Perceived life satisfaction two psychological constructs are related . Results indicate that there is no significant correlation between psychological hardiness & Perceived life satisfaction among farm workers. Farm population is incompletely studied with psychosocial approach , thus further scientific literature is need of the hour , other variables like risk taking behavior, coping strategy, level of loneliness, psychological well-being etc. are Insufficiently researched.

**Keywords** – self-sufficiency, Life satisfaction, psychosocial, psychological Hardiness.

## Introduction

Life satisfaction or personal adjustment is considered an important variable in younger mature as well as aged people several investigators have studied the correlates of life satisfaction & socio-economic status. Agriculture is a comprehensive term involves multitude of tasks include crop production together with land & water management, animal husbandry, fishery & forestry. Agriculture is one of the oldest professions & exercised in a traditional manner. Traditional in the sense i.e. farming is a traditional vocation in India , the agricultural land is an inherited wealth. Stipulating the definition of a farmer, farmer is a person engaged in agriculture like participation in agro business, raising livestock, owns a farm or manages a farm land etc. . On broadening the horizon by considering, the occupation of farming in a psychosocial respect, it might be considered that person involved in occupation of agriculture face different life events which may influence his/her psychology of hardiness & life satisfaction. Situations may vary according to socio-economic status such as variability in income , social & government support , marital status & age , mechanization of farming . Farmers are subjected to a lot of uncertainties like climate, agriculture is one of the oldest profession still exercised in traditional way in many areas, the majority of farmers in India are dependent on rainfall. The cost of cultivation are rising, the magnitude of food loss & food waste is alarming, the markets don't assure the farmer of remunerative returns on his produce . In short , sustainability of agricultural growth faces serious doubt .As far as socio-economic status concerned it , this sector remains a major source of employment for rural workers . India has achieved self- sufficiency in food production at a macro level , but still faces massive challenges of high incidence of rural poverty. Farm families produce goods to meet their own needs. High level of dependency on markets & suppliers has made the farm family vulnerable to worldwide economic . Thus a farmer may experience a sense of loss of control over critical aspects of well being or might attribute the hurdles coming inside & outside farming field as a challenge for personal & professional development are related to Psychological Hardiness & Life Satisfaction domains in life. Research in rural area 1985 by Charriett .K Light , Daris Hertsgard & Ruth E Martin "Education & Income : significant factors in Life satisfaction of farm men & women" was sought to determine life satisfaction perceived by farm men & farm women differed significantly according to age ,gender, income or education level . Medley's research showed that Life satisfaction is relatively high for both sexes across the age span of 22 to 65 years. According to Bortner & Hultsch the individuals appraisal of situations in which they're embedded is related to their life satisfaction , by this relationship it can be claimed that there are numerous situations in which farm families find themselves that might be related to their life satisfaction. Another study was done in Faisalabad district of Pakistan by Abdul Majeed Nadeem et al 2020 . The rationale of this study to determine the impact of socio-economic & water access conditions on life satisfaction among rural farmers in Faisalabad district of Pakistan. Study had 300 household of 10 villages of rural Faisalabad. It was found that source & quality of drinking water, access to irrigation water & percentage of crop water requirement fulfilled & water expenses were statistically significant influencing the households' wellbeing. Study was concluded that water access to the household of 10 villages of rural Faisalabad strongly influence the life satisfaction variable. Respondents' Subjective well-being was measured by asking the question "Generally how happy are you with your life?" This study focused on the rural areas because the lack of quality drinking water is a more important issue for poor people (Watkins 2006 ). The variables on irrigation water access are selected in the light of literature (Lawrence & Meigh, 2002; Heidecke, 2006; Sullivan , 2006; Komnenic 2009; Forouzani & Karami, 2011). In Indian context, Maheshwaran & Ranjit focused on Life Satisfaction & influence of demographic factors on Life satisfaction. where results indicated majority of the respondents had low level of life satisfaction. The variables viz. Health problems ,ownership of house , ownership of land , religion, monthly income & number of children negligibly influence the level of Life satisfaction. Also historically life satisfaction

research has been narrowed mostly to studies of adults (Huebner 1991 , Veenhoven 1998) & such studies are an successful attempt to demonstrate life satisfaction displays robust associations between variety of mental & physical difficulties ( Frisch ,2003) . This conclusion of these studies say that individual who have better mental they are more satisfied with their life . Viren et al., (2007 ) examined the associations between life satisfaction, loneliness, general health & depression. Where the results indicated Life satisfaction was negatively & significantly correlated with suicidal attitudes ,loneliness & depression & found positively correlated with health & the variable health was negatively & significantly correlated with depression & loneliness. On relating the variables in the Context of farming Studies found that Farmers are becoming more isolated due to mechanization of farming ( Malmberg et al.1997 ).Farmers tend to feel as if they need to stay positive when dealing with hardship, expressing negative thoughts & feelings in farming culture is discouraged, which leads to stigma around mental health problems . ( Judd. Et.al 2006 ). Farming is inherently isolated, with many farmers & farm workers living in rural areas with low access to amenities, poor internet access , lack of social mobility& opportunities. (Rebecca Wheeler Matt Lobleby Jude McCann and Alex Phillimore November 2021). They maintain their tractors , they maintain their pumps & everything but they don't maintain themselves. (Harry male farmer in Judd ,Jackson , Fraser ,Murray ,Robins & Komiti 2006 .pp07).Farm families tend to be similar to nonfarm families in terms of structure, life style, income & education. In this sense ,Guttman statement that positively life events are positively related to life satisfaction, should also applied to farm families. Another study has been done in urban context attempted to examine farmers' satisfaction and happiness after the land sale for urban expansion of Gurugram, Haryana, India, under the "Development Plan" . Study reveals that income source and spending pattern after the land sale, i.e., occupation and rental income, rise in spending on children education, household items, gadgets, car/sport utility vehicle, shopping, leisure, and social events positively and significantly affect farmers' satisfaction. This research study also provided information regarding study reveals that income source and spending pattern after the land sale, i.e., occupation and rental income, rise in spending on children education, household items, gadgets, car/sport utility vehicle, shopping, leisure, and social events positively and significantly affect farmers' satisfaction & on the contrary it also revealed that social facilities, i.e., educational institutions, banking, hospitals, recreational facilities, and social costs, i.e., pollution and health concerns have no significant impact on farmers' satisfaction. Notably, this study finds that after the land sale, farmers' satisfaction significantly affects their happiness. The paper concludes with theoretical and policy implications. Life satisfaction of professional college teachers in relation to their stress level was attempted to research by Neena Sawhney & Sneha Bansal 2013.Studies have supported that lower levels of life satisfaction have been related to high stress , it was found that the six dimensions of life satisfaction viz. Health, personal, economic, marital ,social & job satisfaction tend to have positive correlation with each other & also with various aspects that contributes to life satisfaction. Consequently there exists negative & significant relationship between stress & various dimensions of life satisfaction. Broke (2002) also found that if employees perceive organizations values to be supportive of work-personal life balance, they experience greater job and career satisfaction, less stress and have less intention to quit, and more positive emotional well-being . On relating the findings & background of this research literature , According to 2011 census , there are 120 million farmers in India, as of now , according to 2016 survey the annual income of farming household is Rs.20,000 or just Rs.1700 monthly. 52% of farming household are suffering from debt , the average size of this debt is Rs 47,000. Farming in India. The overall share of agriculture in Gross domestic products ( GDP) has declined from 55.1% in 1950-51 to 13.9% in 2013-14 , the dependence of rural workforce on agriculture for employment is higher & this is creating widened income disparity between the agricultural & non agricultural sectors . Farmers in India are also get exploited due to large chain of middle man in the system ,specially among the rural farmers. They have a load of debts it may influence the job



satisfaction & economic satisfaction of the rural farmers. Elderly farmers in rural areas work hard, they not only look after the daily issues of the family but they also work in the agricultural fields & look after livestock animals as long as their health permits. It also subject to influence health satisfaction of a rural farmer. To many rural farmers agriculture is their mother, since it gives them bread & butter, also some farmers who are below poverty line work as casual workers for their survival even if their health don't permit so it can be stated that farming life is stressful, there work life balance affected by hectic farming calendar so these events may influence the life satisfaction & Psychological hardiness of a average farmer in rural area. Different surveys also concluded the relationship between poverty & agriculture income has been established over time, stats which have lower poverty also register higher agricultural income. Research has also been done on the effect of hardiness & social support on satisfaction with life & happiness in retired engineers by Kanika Jindal (2013) It was found after analysis that the interactive effect of 2 independent variables i.e. Hardiness & social support on happiness was not significant. Ahvaz(2011) investigated the relationship between Psychological Hardiness, life satisfaction & hope with academic performance of pre-university female students. The measures of score also showed that Life satisfaction & hardiness had the most contribution in predicting academic performance. Thesis by Elizabeth Anne Burnett, The Ohio State University named "The influence of farmer stress & hardiness on adoption of best management practices in the Maumee Watershed, 2014. Hierarchical regression of the scores of stress & farmer related hardiness of corn & soya bean farmers revealed that risk perceptions & beliefs (hardiness) about Best Management & Practice( BMP) effectiveness (i.e. phosphorus runoff) positively influenced farmer's intentions to adopt BMP's & that stress negatively influenced adoption intentions. It was found that as stress increased, a farmer's intentions to adopt BMP's decreased & moderated regression analysis showed that high hardiness moderated stress influence on the intentions to adopt BMP's. Specifically when hardiness & stress were high, adoption was high but when hardiness was low & stress was higher, the intension of adoption was comparatively lower.

According to Food & Agricultural Organisation( FAO) in United Nations Agriculture accounted for 23% of GDP & employed 59 % of the country's total workforce in 2016. India's agriculture sector is dominated by marginal & small farm holdings, as per the agriculture census data, the no.of marginal holdings accounted for about 2/3rd of the total operational holdings in 2010-11. The proportion of marginal & small holdings taken together increased considerably from 74.5% in 1980-81 to 85 % in 2010-11 with an addition of about 51% holdings over 3 decades. Research has been conducted in the subject of happiness of Farmer in Turkey (2021) Are You Happy to Be a Farmer? attempted to understand indicators related to Agricultural Production.

Aydoğdu et al 2021 stated all over the world, agriculture is supported in various ways due to its unique structure and importance. Among the most important reasons for supporting agricultural production compared to other sectors are that it has higher risks and uncertainties, lower investment attractiveness, a slow rate of investment capital, limited storage and marketing opportunities in rural areas.. It was determined that the Area of irrigation, education level, income, and farming experience were statistically significant at Different rates in terms of the happiness of the farmers. On the other hand, livestock, number of Households, and land size were not statistically significant. While 27.5% of the participants were Fully satisfied with the given public support, 15.7% were satisfied with the market selling prices of Their products, and 43.5% stated that effective organizations are needed to live well.

The review of literatures however reveals insufficient data regarding Psychological Hardiness & Life Satisfaction specifically on farm workers. Furthermore Indian studies in this area are

comparatively fewer. So in this research paper an objective attempt would be made to understand the enigma of this occupational group .

## Hypothesis

The hypothesis will be based on evaluation of the scores of Psychological Hardiness & Perceived life Satisfaction among agricultural household farmworkers.

1.  $H_0$  :- There would be no correlation between psychological hardiness & Perceived Life Satisfaction among rural agricultural household farmworkers
2.  $H_a$  :- There would be positive correlation between psychological hardiness & Perceived life satisfaction among rural agricultural household farmworkers.

## Methodology

### Sample

A sample of 106 participants in the farm work household group ( i.e. aged 22-40 years) of Kanker , Charama ,Narharpur block of Kanker district will be taken in account for purpose of research by stratified random sampling method , based on visiting panchayat office .

Inclusive criteria- Farm worker is a person who was cultivating, whether or not he or she owned land. Agricultural activities included crop cultivation, horticultural cropping ,animal husbandry, poultry farming functional from last 1 week .

Exclusive Criteria- The necessary condition of 'Land Possession' was dispensed, Individuals involved in agricultural household activities like fishery, piggery, vermiculture, sericulture, beekeeping functional from the last 7 days were kept out of the source of survey.

Preliminary proforma :- The pro forma will be constructed to seek the necessary information for the selection of the subjects.

### Measuring Instrument(s)

1. Life Satisfaction Scale by Q.G Alam & Ramji Shrivastava. (Hindi)

Life Satisfaction Scale (2001) Life Satisfaction Scale (Dr. Q.G. Alam and Dr. Ramji Shrivastava). The life Satisfaction scale comprises of items related to six Areas of life viz., health, personal, economic, marital, social and job satisfaction. . There was no time limit. Every 'Yes' response was assigned 1 mark . It was developed and standardized by Alam and Shrivastava (1996). The test consist of 60 items of yes/no type. Yes indicate the satisfaction. Higher scores show higher satisfaction level. The range of age was between 18 to 40 years. Test-retest reliability of the test was found to be .84 and Validity is .74.

2. Singh Psychological Hardiness Scale (SPHS) Arun Kummar Singh (Hindi)

The SPHS has been prepared and standardized by Dr.Arun Kumar Singh (2008) in Indian Situations. SPHS has both sufficient degree of test retest reliability and internal consistency reliability. For calculating the test retest reliability, the scale was administered twice, with a gap of 14 days on a sample of 200 subjects. The test retest reliability was found to be 0.862 which was significant at 0.01 level, likewise, the internal consistency reliability as indicated by the coefficient of alpha was found to be 0.792 which was significant (Cronbach, 1951; Kaiser &

Michael, 1975; Novich & Lewis, 1967). Thus SPHS possessed a sufficient degree of reliability. As far as validity of the tool is concerned, SPHS has also a sufficient degree of content validity. A group of experts (N= 12) provides a high level of consensus regarding suitability of items in terms of being important indices of three components of psychological hardiness, i.e. commitment, control and challenge. The overall coefficient of concordance of the rankings of 12 experts was 0.74, which was significant and it provided evidence for the content validity of the whole scale. Scoring trend of SPHS goes like every item of SPHS has been provided five response categories namely 'strongly agree', 'agree', 'neutral', 'disagree', and 'strongly disagree'. All items except item no 17, 21, 25, 28 would be given a score of 5, 4, 3, 2, 1 for the above five categories of responses respectively. Since these items (17, 21, 25, and 28) are negative, they would be given a score of 1, 2, 3, 4 and 5 for the above five categories of responses respectively. Subsequently the scores earned by the test on each item are added to yield a total score. Higher the score higher is the magnitude of psychological hardiness. This test can be administered in a group of 20 to 25 or one person at a time. The maximum score of a test on SPHS is (30×5=150). The norms of the SPHS concerned, A percentile norm was applied for development of describing the degree of psychological hardiness on the basis of the obtained scores total score. The scale was administered on an unselected sample of 600 (320 males & 280 females) making a cross sectional representation of the population consisted of +2 students (N=100), college students (N=100), Bank & Life India Cooperation i.e. LIC officials (N=100), Officers in Government job (N=100) & Non teaching employees of the university/college (N=100).



## PROCEDURE

Life satisfaction scale & Singh Psychological Hardiness Scale (SPHS) two tests respectively were administered to check the level of life satisfaction & psychological hardiness among rural agricultural household farm-workers. Purpose of the study was made clear to the participants of this research study. Data was collected by face to face interview method. Filled questionnaires are collected from participants for statistical analysis of data. The peaceful surrounding was maintained. After the completion of the test the questionnaires were collected back as per the subject's convenience. The subjects were then offered thanks and were allowed to leave.

## Ethics Statement

The study was conducted in kanker district of Chhattisgarh India. The study aims to explore the measures of two psychological variables i.e. Psychological Hardiness & Life Satisfaction among rural agricultural household farm-workers. Before collecting necessary information from selected farmworkers, following consent form was signed by the respective respondent.

“I am going to ask you some personal questions that some of the people find difficult to answer. Your answers are completely confidential, your name, will not be disclosed to anyone, and will never be used in connection with any of the information you tell me. You do not have to answer any questions that you do not feel comfortable, and you may withdraw from this interview at any time you want to. However, your answers to these questions will help us to understand the farm citizens situation. We would greatly appreciate your help in responding to this interview. Would you be willing to participate?”

## RESULT

After data collection, careful scoring of data was done. The obtained raw score was organized, standardized for comparative purposes using appropriate tables provided in the respective manuals of the Scales used for study, and then analysed using Pearson correlation coefficient using SPSS version 16 and the results of the analysis are presented in table:

**Table 01:** - Descriptive Statistics of scores obtained in respective questionnaires

Scales	Mean	Standard Deviation	N
Scores obtained in Life satisfaction Scale	83.77142857	11.35634	105
Scores Obtained in Psychological Hardiness Scale	119.0380952	12.85041	105

Table-1 indicates Mean, SD of perceived life satisfaction and psychological hardiness. The mean value of life satisfaction and psychological hardiness is found to be 83.77 and 119.03 respectively and the Standard deviation value of life satisfaction and life satisfaction is 11.35634 and 12.85041 respectively through the standard deviation output.

**Table 02:-** Correlation between Life satisfaction & Psychological Hardiness among rural agricultural farm workers.

correlation			
variable	M	SD	1
1. LSS	83.77	11.35	
2. PHS	1.19	12.85	0.018

N= 105, LSS- Life satisfaction scale, PHS- Psychological hardiness scale

Table 2 indicates that p-value greater than 0.05 significance level, fail to reject the null hypothesis. Correlation results are not significant.

The alternative hypothesis of present study is rejected & results are found to be statistically no correlation among two variables i.e. Life satisfaction & psychological hardiness. P value is greater than the 0.05 significant value which implies failure to reject null hypothesis.

## Conclusion

The alternative hypothesis of present study is rejected & results are found to be statistically no correlation among two variables i.e. Life satisfaction & psychological hardiness. P value is greater than the 0.05 significant value which implies failure to reject null hypothesis.

## Discussion

Results indicated that there is no significant correlation between two psychological variables among selected population. sample did not provide sufficient evidence to conclude that the effect exists so alternative hypothesis thus rejected . Results indicated that there is no significant correlation between two psychological variables among selected population. sample did not provide sufficient evidence to conclude that the effect exists so alternative hypothesis thus rejected . The aim of the present study was sought to assess the relationship between psychological hardiness and life satisfaction . Based on the data we gathered from the farm worker population we found that no significant correlation exists between psychological hardiness and life satisfaction, with regards to results it can be claimed that in farming context these variables are not significantly correlating though scores gathered on life satisfaction scale in present study indicated that farmworkers with multiple engagement in farming activity like cultivation , horticultural cropping, poultry & dairy tends to have greater life satisfaction measures than farm worker subjects with only single or double involvement in categories agricultural practice. The major paper supporting the evidence of existing no correlation among two variables is the effect of hardiness & social support on satisfaction with life & happiness in retired engineers by Kanika Jindal (2013) International Journal of Advanced Research in Management & Social Sciences attempted to study effects of hardiness & social support in the measures of satisfaction with life & happiness It was 2×2 factor study where interaction effect of hardiness & social support on satisfaction with life for retired engineers was significant at .05 level (F=5.25) which can be indicated as engineers who are hardy & have higher social support ,have greater satisfaction with their life . The measures of scores also suggested that Engineers who were hardy & had higher social support had greater satisfaction with their life & retired engineers who had high hardiness & higher social support are happier than those retired engineers who managed to score low hardiness & low social support. It was found after analysis that the interactive effect of 2 independent variables i.e. Hardiness & social support on happiness was not significant. This study given some other significant findings as well like high hardy retired engineers evidenced significantly higher satisfaction with life & happiness than low hardy professional Engineers with high hardiness & high social support had better mental health & reported greater scores on the measures of satisfaction with life & happiness. The 120 retired engineers were randomly selected from Malaviya National Institute of Technology ( MNIT) Jaipur who retired during 2000-2009 calendar year . Results disclosed there significant influence on satisfaction with life & happiness furthermore interaction of hardiness & social support also significantly affected satisfaction with life scores. Medley's research showed that Life satisfaction is relatively high for both sexes across the age span of 22 to 65 years. Present study also resulted that age group of 35 to 40 had average score of 87.667 in life satisfaction measures than subjects with the age 22 to 34 had average score of 81.46. Historically life



satisfaction research has been narrowed mostly to studies of adults (Huebner 1991 , Veenhoven 1998) studies are successful attempt to demonstrate life satisfaction displays robust associations between variety of mental & physical difficulties ( Frisch ,2003) . This conclusion of these studies say that individual who have better mental state they are more satisfied with their life . It supports that life satisfaction is still Insufficiently researched topic in scientific literature of psychology among farmers. No significant correlation with psychological hardiness may be due to repetitive selection of sample population .

## Limitations

This study has some limitations , although, present study has been done in the best manner possible and standard procedure.

- The study doesn't explore if birth order & class of an individual influence life satisfaction & psychological hardiness among selected farm samples.
- The result cannot be generalized to the larger population as most of the population belong to kanker district of Chhattisgarh only .
- Individuals involved in agricultural household activities like fishery, piggery, vermiculture, sericulture, beekeeping were kept out of the source of survey.
- Despite of stratified random sampling, still several questionnaires were discarded due to subject's improper attention while the necessary instructions were given . Some of the subjects given socially desirable responses to the items without listening the researcher's complete instructions.
- Poor command over language among subjects & researcher .Though the tools used were Hindi in language still language barrier was faced while dealing with samples with 5<sup>th</sup> pass 8<sup>th</sup> pass educational qualifications.
- The period of time for inclusion criteria for this study was of 7 days which loses it's validity & reliability with the time .
- Deadline effect : Most of the important steps of data collection like rapport building were done in an "as soon as" rule , which might have affected the credibility of the data gathered for this thesis .
- Variability of the data was high .

## Scope for future study

- Explore if concept of life satisfaction with relation to birth order among farm samples is related to psychological hardiness & life satisfaction.
- This paper provide a comprehensive insight Farming not as a occupation rather as in a psychosocial respect.
- The review of literature of the present study is useful to associate other positive psychology constructs among this population.
- Conduct the present study in large scale so that it will increase the generalizability of the gathered data .
- Future study should also include variable like Psychological well being i.e. larger aspect among positive psychology constructs . It covers multiple facets of individual's overall well-being of life
- Why subjects with increased age managed to score better at life satisfaction measure than subjects with age group (22-34 )
- Effect of psychological hardiness & life satisfaction among population belonging to different class of society, can be included in future studies.
- Comparison between two farm worker population like farm worker with cultivation, horticultural cropping & dairy & poultry farm worker are based on some specific duration comparisons of these variables can be made. Multiple comparisons can be made since there are 5 different types of farmworkers are taken into this research study.
- Individuals involved in agricultural household activities like fishery, piggery, vermiculture, sericulture, beekeeping were kept out of the source of survey, thus they can be studied in future .
- Different instruments or tools can be assessed in future .

## References

1. Abdul Majeed Nadeem, Muhammad Zahid Rafique, Khuda Bakhsh, Muhammad Sohail Amjad Makhdum, Shaoan Huang; Impact of socio-economic and water access conditions on Life satisfaction of rural farmers in Faisalabad district of Pakistan. *Water Policy* 1 August 2020; 22 (4): 686–701. Doi: <https://doi.org/10.2166/wp.2020.004> .
2. Aydoğdu, Mustafa & Cançelik, Mehmet & Sevinç, Mehmet & Çullu, Mehmet & Yenigun, Kasim & Küçük, Nihat & Karli, Bahri & Ökten, Şevket & Beyazgül, Uğur & Parlakçi Doğan, Hatice & Sevinç, Gönül & Şahin, Zeliha & Mutlu, Nusret & Kaya, Celal & Yenikale, Ayla & Yenikale, Akif. (2021). Are You Happy to Be a Farmer? Understanding Indicators Related to Agricultural Production and Influencing Factors: GAP-Şanlıurfa, Turkey. *Sustainability*. 13. 12663. 10.3390/su132212663.
3. Bina Agarwal & Ankush Agrawal (2017) Do farmers really like farming? Indian farmers in transition, *Oxford Development Studies*, 45:4, 460-478, DOI: 10.1080/13600818.2017.1283010
4. Banjare P, Dwivedi R, Pradhan J. Factors associated with the life satisfaction amongst the Rural elderly in Odisha, India. *Health Qual Life Outcomes*. 2015 Dec 21;13:201. Doi: 10.1186/s12955-015-0398-y. PMID: 26691176; PMCID: PMC4687085.
5. Burnett, E. A. (2014). The Influence of Farmer Stress and Hardiness on Adoption of Best Management Practices in the Maumee Watershed [Master's thesis, Ohio State University]. Ohio LINK Electronic Theses and Dissertations Center. Bina Agarwal & Ankush Agrawal (2017) Do farmers really like farming? Indian farmers in Transition, *Oxford Development Studies*, 45:4, 460-478, DOI: 10.1080/13600818.2017.1283010.
6. Carson, D.K., Araquistain, M., Ide, B. Et al. Stress, strain, and hardiness as predictors of adaptation in farm and ranch families. *J Child Fam Stud* 3, 157–174 (1994). <https://doi.org/10.1007/BF02234065>
7. Committee on Doubling Farmers' Income, Department of Agriculture, Cooperation and Farmers' Welfare, Ministry of Agriculture & Farmers' Welfare. (2017, August). Report of the Committee on doubling farmers' income volume II "Status of farmers' income: Strategies for Accelerated growth" inter-linkages between input costs, diversification, capital formation and Income. Farmer.gov.in.

8. HAMID, N. (2011). RELATIONSHIP BETWEEN PSYCHOLOGICAL HARDINESS, LIFE SATISFACTION AND HOPE WITH ACADEMIC PERFORMANCE OF PRE-UNIVERSITY FEMALE STUDENTS. JOURNAL OF APPLIED PSYCHOLOGY, 4(4 (16)), 101-1116
9. Higuchi, A., Coq Huelva, D., Arias Gutiérrez, R. Y Alfalla Luque, R. (2020). Farmer satisfaction and cocoa cooperative performance: evidence from Tocache, Peru. *International Food and Agribusiness Management Review*, 23 (2), 217-234.
10. Haugen, M. S., & Blekesaune, A. (2005). Farm and Off-farm Work and Life Satisfaction Among Norwegian Farm Women. *Sociologia Ruralis*, 45(1-2), 71-85. <https://doi.org/10.1111/j.1467-9523.2005.00291.x>
11. Haavio-Mannila, E. (1971). Satisfaction with Family, Work, Leisure and Life Among Men and Women. *Human Relations*, 24(6), 585-601. <https://doi.org/10.1177/001872677102400612>
12. Jindal, K. (2013). Effect of hardiness & social support on satisfaction with life & happiness in Retired engineers. *Effect of Hardiness & Social Support on Satisfaction with Life & Happiness In Retired Engineers*, 02, 1-11. Sawhney, Neena & Bansal, Sneha. (2013). LIFE SATISFACTION OF PROFESSIONAL COLLEGE TEACHERS IN RELATION TO THEIR STRESS LEVEL. *Indian Journal of Health And Well being*. 4. 272-277.
13. Kumar, K., & Chaturvedi, R. (2018). An empirical study of social support, stress and life satisfaction among engineering graduates: mediating role of perceived work/study life balance. *International Journal of Happiness and Development*, 4(1), 25. <https://doi.org/10.1504/ijhd.2018.10011591>
14. Robert Chambers, B.P. Ghildyal, Agricultural research for resource-poor farmers: The farmer-first-and-last model, *Agricultural Administration*, Volume 20, Issue 1, 1985, Pages 1-30, ISSN 0309-586X, [https://doi.org/10.1016/0309-586X\(85\)90063-9](https://doi.org/10.1016/0309-586X(85)90063-9). (<https://www.sciencedirect.com/science/article/pii/S0309586X85900639>)
15. Pankaj Kumar, Parveen Kumar, Ramesh Kumar Garg, A study on farmers' satisfaction and happiness after the land sale for urban expansion in India, *Land Use Policy*, Volume 109, 2021, 105603, ISSN 0264-8377, <https://doi.org/10.1016/j.landusepol.2021.105603>. (<https://www.sciencedirect.com/science/article/pii/S0264837721003264>)

16. Ramli. (2013). SATISFACTION RECEIVED TOWARDS AGRICULTURAL INFORMATION FROM TELEVISION PROGRAMS AMONG FARMERS. *Journal of Social Sciences*, 9(2), 48–53. <https://doi.org/10.3844/jssp.2013.48.53> .

