

“IMPROVING THE KNOWLEDGE AND SELF-MANAGEMENT BEHAVIOUR ON BLOOD PRESSURE CONTROL MEASURE THROUGH EDUCATIONAL SOCIAL NETWORK.”

Ms. Sonal Patel¹, Mr. Chayan Jain²

¹Assistant professor, Department of Medical Surgical Nursing, Sumandeep Nursing College, Sumandeep Vidyapeeth Deemed to be University, Vadodara, Gujarat, India.

²Post Graduate Nursing Student, Medical Surgical Nursing (Cardiovascular & Thoracic Nursing), Sumandeep Nursing College, Sumandeep Vidyapeeth Deemed to be University, Vadodara, Gujarat, India.

Corresponding Author

Mr. Sonal Patel

Assistant Professor, Department of Medical Surgical Nursing, Sumandeep Nursing College, Sumandeep Vidyapeeth deemed to be University, Vadodara, Gujarat,
Email: sonalpatel6409@gmail.com

ABSTRACT

Background of the study: Hypertension is controlled through the self-management behaviour is the most importance. So, it is importance to enhance knowledge regarding hypertension which one food is best eat all the patients who undergoing the High Blood Pressure. **Aim:** To determine the effectiveness of Educational Social Network strategies, increase the knowledge regarding blood pressure and control the blood pressure. **Material and method:** pre-experimental one group pre-test post-test research design was used. The sampling technique was non- randomized enumerative sampling is used to collect the 60 sample of hypertensive patients. assess the health parameter's through sphygmomanometer equipment use and data collection done by administering the structured questionnaire and hypertension self-management behaviour scale. **Result:** Data was analyzed by using descriptive and inferential statistics such as standard deviation, Wilcoxon signed rank test, and paired 't' test. Result revealed hypertensive people post-test health parameter's decreased mean value, the knowledge level scores improved in Post compared to Pre scores. The correlation between knowledge and self-integration is the only negative correlation. **Discussion and Conclusion:** Hence, we can conclude that the intervention was very effective and there was a statistically significant difference in the values of the Post values when compared to Pre values.

KEY WORD: Blood Pressure, Control Measure, Education Module Social, Knowledge, Self-Management Behavior.

INTRODUCTION

High Blood pressure is main health problem in world-wide. Hypertension is a raised the complication is included in heart failure, chronic kidney disease, congestive heart failure, stroke, peripheral vascular diseases, coronary artery disease, renal impairment, retinal hemorrhage and also visual impairment.¹

Hypertension is a key factor for cardiovascular disease. Currently, around a third of people with Hypertension are undiagnosed, and of those diagnosed, around half are not taking antihypertensive medication. The world health organization (WHO) estimate that High Blood Pressure directly or indirectly reason death of at least nine million persons worldwide every year.²

H₁- There will be increase significant different between knowledge on Blood Pressure control measure through Educational Social Network at 0.05 level of significance.

MATERIAL AND METHODS

The research study was conducted were pre-experimental one group pre-test Post-test design was used. In this study Select the population middle age group hypertensive people at primary health Center Waghodia, Vadodara, Gujarat. Through Non-Randomized Enumerative Sampling Technique. 60 middle aged hypertensive people were recruited. The study included middle age hypertensive people who is suffering with hypertension He /She is on hypertensive medication. Data collected done by

administering the structured questionnaire and hypertension self-management behaviour scale data collection process completed within 3 weeks. Data were analyzed by Descriptive & Inferential Statistics.

Reliability of tool was assessed by conducting pilot study among 06 Hypertensive patients who did not participate in main study. A split half method spearman brown prophecy formula was used to check reliability its result was $r = 0.6$. this states the modified self-structured questionnaire and hypertension self-management behavior scale was reliable. Validity of this tool was re examined by experts. Finally, all 8 criteria's were determined to assess the knowledge and self-management behavior of hypertensive people. Data collection process was completed in 3 weeks when the 60 sample were obtained. Data were analyzed using excel. Descriptive and inferential statistics were used.

RESULTS

TABLE-1: Frequency distribution of demographic variable.

| Variables | Categories | Frequency | Percentage |
|---------------------------------------|---------------------|-----------|------------|
| Age | 21-30 years | 1 | 1.7 |
| | 31-40 years | 1 | 1.7 |
| | 41-50 years | 13 | 21.7 |
| | 51-60 years | 45 | 75.0 |
| Gender | Male | 32 | 53.3 |
| | Female | 28 | 46.7 |
| Religion | Hindu | 51 | 85.0 |
| | Muslim | 9 | 15.0 |
| Education | Illiterate | 18 | 30.0 |
| | Primary | 41 | 68.3 |
| | Secondary | 1 | 1.7 |
| Marital Status | Married | 50 | 83.3 |
| | Unmarried | 7 | 11.7 |
| | Widow / Widower | 3 | 5.0 |
| Occupation | Private Job | 13 | 21.7 |
| | Own Business | 36 | 60.0 |
| | Govt. Employee | 4 | 6.7 |
| | Farmer | 7 | 11.7 |
| Type of Work | Moderate work | 53 | 88.3 |
| | Sedentary work | 7 | 11.7 |
| Monthly Income | Rs.5000 - 10,000 | 25 | 41.7 |
| | Rs.10,000 - 15,000 | 34 | 56.7 |
| | more than Rs.15,000 | 1 | 1.7 |
| Current Residence area | Rural area | 55 | 91.7 |
| | Urban area | 4 | 6.7 |
| | Semi-Urban | 1 | 1.7 |
| Dietary Pattern | Vegetarian | 32 | 53.3 |
| | Non-Vegetarian | 1 | 1.7 |
| | Mixed diet | 27 | 45.0 |
| Family History of Hypertension | Yes | 18 | 30.0 |
| | No | 42 | 70.0 |
| Duration of Hypertension | 1 - 3 years | 41 | 68.3 |
| | 4 - 6 years | 18 | 30.0 |
| | more than 8 years | 1 | 1.7 |
| Duration of Antihypertensive medicine | less than 1 year | 19 | 31.7 |
| | 1 - 5 years | 39 | 65.0 |
| | 5 - 10 years | 2 | 3.3 |
| Drugs Intake (per day) | One | 39 | 65.0 |
| | Two | 21 | 35.0 |
| Smoke or use Tobacco? | Yes | 15 | 25.0 |
| | No | 45 | 75.0 |
| Drink Alcohol? | Yes | 1 | 1.7 |

| | | | |
|---|-------------|----|------|
| | No | 59 | 98.3 |
| Did father or mother die before 60 years of age due to hypertension | Yes | 8 | 13.3 |
| | No | 20 | 33.3 |
| | Don't know | 32 | 53.3 |
| | | | |
| BMI | Underweight | 1 | 1.7 |
| | Normal | 34 | 56.7 |
| | Overweight | 2 | 3.3 |
| | Obesity I | 18 | 30.0 |
| | Obesity II | 5 | 8.3 |

- The majority (75%) of the participants were in the 51-60 years of age group in our study and about 22% were in the 41-50 years of age group, 1.7% were in the 31-40 years of age group, 1.7% were in the 21-30 years of age group.
- The majority of 53% were males and rest 47% females.
- About 85% of the participants in our study were Hindus while the rest 15% were Muslims.
- Primary educated were about 68% (the maximum) while 30% were illiterate.
- The majority of 83% of participants were married while about 12% were unmarried and 5% widow/widower.
- The majority 60% of participants had their own business while about 22% had a private job. About 12% were farmers and rest 7% were Govt. employees.
- About 88% of participants were involved in moderate type of work while rest 12% were in sedentary type of work.
- Majority (approx. 57%) of the participants had their monthly income in the range of Rs.10,000 to Rs.15,000 while about 42% of the participants were in the lower income range of Rs.5000 to Rs.10,000.
- Most of the participants in our study resided in the rural area (92%) while about 7% of them resided in the urban area.
- In our study Most of the participants (53%) were vegetarians in our study while mixed dietary pattern was followed by 45% of the participants.
- About 70% of participants had no family history of hypertension while the rest 30% had a history of the same.
- Majority (68%) of the participants had hypertension since 1 to 3 years while 30% had hypertension from 4 to 6 years and other 1.7% is more than 8 years.
- About 65% participants took antihypertensive medicine since 1 to 5 years while about 32% took only since less than 1 year.
- About 65% of participants took one drug per day for hypertension while 35% took two drugs.
- Smoked or used tobacco were 25% while rest 75% did not use.
- About 98% of participants did not use alcohol in our study.
- About 13% of participants' either father or mother had died before 60 years of age due to hypertension while about 53% of participants did not know the reason of their death.
- (About-57%) were in the Normal category of BMI while about 30% were in the Obesity I category of BMI.

Section-II

Analysis the pre and post-test health parameter's in order identify risk factor of cardiovascular disease in hypertensive people.

Correlation and Paired t-test was carried out to check the descriptive statistics.

TABLE-2: Distribution of mean, SD deviation, std. error mean

| Paired Samples Statistics | | | | | |
|---------------------------|------------------------------------|--------|----|----------------|-----------------|
| | | Mean | N | Std. Deviation | Std. Error Mean |
| Pair 1 | Pre-SBP (mmHg) | 145.78 | 60 | 12.047 | 1.555 |
| | Post-SBP (mmHg) | 126.32 | 60 | 7.409 | .957 |
| Pair 2 | Pre-DBP (mmHg) | 89.17 | 60 | 11.069 | 1.429 |
| | Post-DBP (mmHg) | 77.32 | 60 | 9.009 | 1.163 |
| Pair 3 | Pre-Pulse (beats/min) | 85.35 | 60 | 9.961 | 1.286 |
| | Post-Pulse (beats/min) | 77.80 | 60 | 12.560 | 1.622 |
| Pair 4 | Pre-Respiratory Rate (breaths/min) | 22.07 | 60 | 1.912 | .247 |

| | | | | | |
|--|-------------------------------------|-------|----|-------|------|
| | Post-Respiratory Rate (breaths/min) | 20.90 | 60 | 1.537 | .198 |
|--|-------------------------------------|-------|----|-------|------|

pre-test systolic blood pressure (mm of Hg) mean value is (145.78), SD (12.047), SD error mean (1.555) And post-test systolic blood pressure (mm of Hg) mean value is (126.32), SD (7.409), SD error mean (.957), and pre diastolic blood pressure (mm of Hg) mean value is (89.17), SD (11.069), SD error mean (1.429), and post-test diastolic blood pressure (mm of Hg) mean value is (77.32), SD (9.009), SD error mean (1.163), pre-test pulse (beats/ min.) mean value is (85.35), SD (9.961), SD error mean (1.286), post-test pulse (beats/ min.) mean value is (77.80), SD (12.560), SD error mean (1.622), pre respiratory rate (breaths/ min.) mean value (22.07), SD (1.912), SD error mean (.247), post respiratory rate (breaths/min.) mean value (20.90), SD (1.537), SD error mean (.198).

TABLE-3: Correlations between the pretest health parameter`s and post-test health parameter`s in the four pairs, and significant difference in their mean values.

| Paired Samples Correlations | | | | |
|-----------------------------|--|----|-------------|------|
| | | N | Correlation | Sig. |
| Pair 1 | Pre-SBP (mmHg) & Post-SBP (mmHg) | 60 | .263 | .042 |
| Pair 2 | Pre-DBP (mmHg) & Post-DBP (mmHg) | 60 | .398 | .002 |
| Pair 3 | Pre-Pulse (beats/min) & Post-Pulse (beats/min) | 60 | .417 | .001 |
| Pair 4 | Pre-Respiratory Rate (breaths/min) & Post-Respiratory Rate (breaths/min) | 60 | .072 | .587 |

This table show that the 4 pair had correlation pre systolic blood pressure & post systolic blood pressure (mm of Hg) include the 60 sample correlation value is (.263) , significant value is (.042) and pre diastolic blood pressure & post diastolic blood pressure correlation value is (.398), significant value is (.002) and pre pulse & post-test pulse (beats/min.) include 60 sample correlation value is (.417), significant value is (.001) and pre-respiration & post respiration rate rate (breaths/min.) include 60 sample correlation value (.072), significant value is (.587).

Except for Pair 4, all pairs had correlation which was significant at 5% level of significance. The above values highlighted in the table show the correlation coefficients and the P-values.

TABLE-4: The mean difference of Pre and Post values mean, std. deviation std, error mean, confidence level (lower and upper), t value, DF, significance.

| Paired Samples Test | | | | | | | | | |
|---------------------|--|--------------------|----------------|-----------------|---|--------|--------|----|-----------------|
| | | Paired Differences | | | | | T | df | Sig. (2-tailed) |
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | Lower | Upper | | | |
| Pair 1 | Pre-SBP (mmHg) – Post-SBP (mmHg) | 19.467 | 12.373 | 1.597 | 16.270 | 22.663 | 12.186 | 59 | .000 |
| Pair 2 | Pre-DBP (mmHg) – Post-DBP (mmHg) | 11.850 | 11.152 | 1.440 | 8.969 | 14.731 | 8.231 | 59 | .000 |
| Pair 3 | Pre-Pulse (beats/min) – Post-Pulse (beats/min) | 7.550 | 12.353 | 1.595 | 4.359 | 10.741 | 4.734 | 59 | .000 |
| Pair 4 | Pre-Respiratory Rate (breaths/min) – Post-Respiratory Rate (breaths/min) | 1.167 | 2.366 | .305 | .555 | 1.778 | 3.819 | 59 | .000 |

This table show that paired difference of pre and post health parameter`s values mean, SD, 95% Confidence Interval of the Difference (lower, upper), T value, DF significant value, they 60 sample value calculate, pair one pre-systolic blood pressure & post systolic blood pressure (mm of Hg) mean

value is (19.467), SD (12.373), SD error mean (1.597), 95% confidence interval of the difference lower value is (16.270) and upper value is (22.663), T-value is (12.186), DF (59), significant value (.000), and pair two pre diastolic & post diastolic (mm of Hg) mean value is (11.580), SD (12.373), SD error mean (1.597), 95% confidence interval of the difference lower value is (8.969), upper value is (14.731), T-value is (8.231), DF (59), significant value is (.000), and third pair is pre pulse & post pulse (beats/ min) mean value is (7.550), SD (12.353). SD error mean (1.595), 95% confidence interval of the difference lower value is (4.359), upper value is (10.741), T-value is (4.734). DF (59), significant value is (.000), and four pair is pre respiratory rate & post respiratory rate mean value is (1.167), SD (2.366), SD error mean (.305), 95% confidence interval of the difference lower value is (.555), upper value is (1.778), T-value is (3.819), DF (59), significant value is (.000).

The above table shows that the P-value for all the pairs is less than 0.05 and therefore, the mean difference of Pre and Post values are statistically significant when tested at 5% level of significance.

Section-III

Analysis the pre- and post-test social network educational module on knowledge and self-management behaviour blood pressure control measure among hypertensive peoples

Percentage Distribution of Knowledge category

TABLE-5: The distribution of knowledge level pre- and post-category.

| Category | Pre % (n=60) | Post % (n=60) |
|----------|--------------|---------------|
| Poor | 3.3 (2) | 0.0 (0) |
| Average | 85.0 (51) | 48.3 (29) |
| Good | 11.7 (7) | 51.7 (31) |

Distribute the three number in pre-test knowledge level is about 85% were in the average knowledge level, 12% were participant knowledge level good and remaining participant 3% knowledge is poor, post-test level of knowledge 52% people have good knowledge and while rest 48% is average knowledge regarding blood pressure.

TABLE-6: pre- and post-categories of knowledge compared.

| Ranks | | | | |
|---|----------------|-----------------|-----------|--------------|
| | | N | Mean Rank | Sum of Ranks |
| Post Knowledge Category - Pre-Knowledge Category | Negative Ranks | 0 ^a | .00 | .00 |
| | Positive Ranks | 26 ^b | 13.50 | 351.00 |
| | Ties | 34 ^c | | |
| | Total | 60 | | |
| a. Post Knowledge Category < Pre-Knowledge Category | | | | |
| b. Post Knowledge Category > Pre-Knowledge Category | | | | |
| c. Post Knowledge Category = Pre-Knowledge Category | | | | |

The ranks of the 60 scores improved as we can observe from the above table. Of the 60 pairs, 26 had positive ranks and 34 had ties (which means no change in Pre and Post categories), while no pair had any negative ranks (i.e., none of the pairs had low rank in Post score when compared with Pre score).

TABLE-7: Wilcoxon signed rank test pre score to post score compared

| Test Statistics | |
|-------------------------------|--|
| | Post Knowledge Category – Pre-Knowledge Category |
| Z | -5.099^b |
| Asymp. Sig. (2-tailed) | .000 |
| a. Wilcoxon Signed Ranks Test | |
| b. Based on negative ranks. | |

The Wilcoxon Signed Ranks test gave $Z = -5.099$ and $P\text{-value} < 0.05$ and hence, we can conclude that the difference in the values of Pre and Post were highly significant when tested at 5% level of significance. Therefore, we can conclude that the scores significantly improved in Post compared to Pre scores.

TABLE-8: Distribution of mean, SD and SD error mean Self-Management behaviour

| Paired Samples Statistics | | | | | |
|---------------------------|---|-------|----|----------------|-----------------|
| | | Mean | N | Std. Deviation | Std. Error Mean |
| Pair 1 | Post Self Integration | 40.40 | 60 | 4.385 | .566 |
| | Pre-Self Integration | 29.52 | 60 | 4.782 | .617 |
| Pair 2 | Post Self-Regulation | 27.95 | 60 | 3.212 | .415 |
| | Pre-Self-Regulation | 21.03 | 60 | 3.966 | .512 |
| Pair 3 | Post Interaction with Health Professional | 28.25 | 60 | 3.307 | .427 |
| | Pre-Interaction with Health Professional | 20.93 | 60 | 3.896 | .503 |
| Pair 4 | Post Self-Monitoring | 12.52 | 60 | 1.712 | .221 |
| | Pre-Self-Monitoring | 9.23 | 60 | 2.045 | .264 |
| Pair 5 | Post Adherence to Recommended Regimen | 15.73 | 60 | 2.098 | .271 |
| | Pre-Adherence to Recommended Regimen | 11.15 | 60 | 2.629 | .339 |

This table show that self-management behaviour regarding blood pressure paired t-test was conducted to find whether the difference in the pre and post value distribution the mean, SD, and SD error mean, included the 60 participant value calculated, pair one pre self-integration mean value is (29.52), SD (4.782), SD error mean (.617), and post-test self-integration mean value is (40.40), SD (4.385), SD error mean (.566), second pair include the pre self-regulation mean value is (21.03), SD (3.966), SD error mean, (.512), and post-test self-regulation mean value is (27.95), SD (3.212), SD error mean, (.415), third pair included the pre interaction with health professional mean value is (20.93), SD (3.896), SD error mean (.503), post interaction with health professional mean value is (28.25), SD (3.307), SD error mean (.427), pair four pre self-monitoring mean value is (9.23), SD (2.045), SD error mean (.264), post self- monitoring mean value is (12.52), SD (1.712), SD error mean (.221), pair five included the pre adherence to recommended regimen mean value is (11.15), SD (2.629), SD error mean, (.339) and post adherence to recommended regimen mean value is (15.73), SD (2.098), SD error mean value is (.271).

TABLE-9: Correlations in the paired, and significant difference in their mean values pre and posttest self-management behavior.

| Paired Samples Correlations | | | | |
|-----------------------------|--|----|-------------|------|
| | | N | Correlation | Sig. |
| Pair 1 | Post Self Integration & Pre-Self Integration | 60 | -.144 | .272 |
| Pair 2 | Post Self-Regulation & Pre-Self-Regulation | 60 | -.069 | .600 |
| Pair 3 | Post Interaction with Health Professional & Pre-Interaction with Health Professional | 60 | .101 | .441 |
| Pair 4 | Post Self-Monitoring & Pre-Self-Monitoring | 60 | .091 | .490 |
| Pair 5 | Post Adherence to Recommended Regimen & Pre-Adherence to Recommended Regimen | 60 | .103 | .435 |

This Table show the five pair pre and post self-management behaviour variable were include the table correlation value and significant value, pair one post self-integration & pre self-integration correlation value is (-.144), and significant value is (.272), second pair post self-regulation & pre self-regulation correlation value is (-.069), significant value is (.600), third pair is post interaction with health professional & pre interaction with health professional correlation value is (.101), significant value is (.441), four pair is post self-monitoring & pre self-monitoring correlations value is (.091), significant value is (.490), five pair is post adherence to recommended regimen & pre adherence to recommended regimen correlation value is (.103), significant value is (.435).

From the above table, none of the correlation was significant as all $P\text{-values} > 0.05$. The correlation was negative in case of Self Integration and Self-Regulation variables while rest of the variables had positive correlation.

TABLE-10: pre and post-test self-management behaviour descriptive stastics.

| Paired Samples Test | | | | | | | | | |
|---------------------|---|--------------------|-------------------|-----------------------|---|--------|--------|----|--------------------|
| | | Paired Differences | | | | | t | Df | Sig. (2-tailed) |
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | Lower | Upper | | | |
| Pair 1 | Post Self Integration - Pre-Self Integration | 10.883 | 6.938 | .896 | 9.091 | 12.676 | 12.150 | 59 | .000 |
| Pair 2 | Post Self-Regulation - Pre-Self-Regulation | 6.917 | 5.273 | .681 | 5.554 | 8.279 | 10.160 | 59 | .000 |
| Pair 3 | Post Interaction with Health Professional - Pre-Interaction with Health Professional | 7.317 | 4.849 | .626 | 6.064 | 8.569 | 11.689 | 59 | .000 |
| Pair 4 | Post Self-Monitoring - Pre-Self-Monitoring | 3.283 | 2.545 | .329 | 2.626 | 3.941 | 9.993 | 59 | .000 |
| Pair 5 | Post Adherence to Recommended Regimen - Pre-Adherence to Recommended Regimen | 4.583 | 3.191 | .412 | 3.759 | 5.408 | 11.127 | 59 | .000 |

This table show that paired difference of pre and post hypertension self-management behaviour values mean, SD, 95% Confidence Interval of the Difference (lower, upper), T value, DF, significant value, they 60 sample values calculate, pair one post self-integration & pre-self-integration mean value is (10.883), SD (6.938), SD error mean (.896), 95% confidence interval of the difference lower value is (9.091) and upper value is (12.676), T-value is (12.150), DF (59), significant value (.000), and pair two post self-regulation & pre self-regulation mean value is (6.917), SD (5.273), SD error mean (.681), 95% confidence interval of the difference lower value is (5.554), upper value is (8.279), T-value is (10.160), DF (59), significant value is (.000), and third pair is post interaction with professional & pre interaction with professionals mean value is (7.317), SD (4.849). SD error mean (.626), 95% confidence interval of the difference lower value is (6.064), upper value is (8.569), T- value is (11.689). DF (59), significant value is (.000), and four pair is post self-monitoring & pre self-monitoring mean value is (3.283), SD (2.545), SD error mean (.329), 95% confidence interval of the difference lower value is (2.626), upper value is (3.941), T-value is (9.993), DF (59), significant value is (.000), five pair is post adherence to recommended regimen & pre adherence to recommended regimen mean value is (4.583), SD (3.191), SD error mean (.412), 95% confidence interval of the difference lower value is (3.759), upper value is (5.408), T- value is (11.127). DF (59), significant value is (.000).

The above tables give the descriptive statistics of Post – Pre mean values, Correlation Coefficient between these paired values, and Paired t-test.

The correlation was not significant as none of the pairs' P-value was less than 0.05. The correlation was also very weak. It was observed that both negative and positive correlations were present in these pairs.

The Paired t-test of these 5 pairs, shows that all the pairs had significant difference from Pre and Post values as all the P-values were less than 0.05 when tested at 5% level of significance.

Hence, we can conclude that the intervention was very effective and there was a statistically significant difference in the values of the Post values when compared to Pre values.

Section-iv

Association between the knowledge and self-management behaviour on blood pressure control measure among hypertensive people.

TABLE-11: Association between the post-test knowledge and post self- management behaviour.

| Paired Samples Correlations | | | | |
|-----------------------------|---|----|-------------|------|
| | | N | Correlation | Sig. |
| Pair 1 | Total_PoK & Post Self Integration | 60 | -.043 | .742 |
| Pair 2 | Total_PoK & Post Self-Regulation | 60 | .019 | .883 |
| Pair 3 | Total_PoK & Post Interaction with Health Professional | 60 | .092 | .484 |
| Pair 4 | Total_PoK & Post Self-Monitoring | 60 | .035 | .789 |
| Pair 5 | Total_PoK & Post Adherence to Recommended Regimen | 60 | .068 | .603 |

This table show the five pair correlation between the post knowledge score and post self-management behaviour score as total post of knowledge and post self-integration correlations value is (-.043), and significant value is (.742), total post of knowledge score and post self-regulation correlation value is (.019), significant value is .883, and total post of knowledge & post interaction with health professionals (.092), significant value is (.484), and total post of knowledge & post self-monitoring correlations value is (.035), significant value is (.789), and total post of knowledge & post adherence to recommended regimen correlation value is (.068), significant value is (.603).

There is no significant correlation between the post knowledge scores and the post self-management behaviour scores as all the P-values > 0.05. The correlation between knowledge and self-integration is the only negative correlation.

TABLE-12: post knowledge score and post self-management behaviour score paired t-test.

| Paired Samples Test | | | | | | | | | |
|---------------------|---|--------------------|----------------|-----------------|---|---------|---------|----|-----------------|
| | | Paired Differences | | | | | t | Df | Sig. (2-tailed) |
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | | Lower | Upper | | | |
| Pair 1 | Total_PoK - Post Self Integration | -22.833 | 5.073 | .655 | -24.144 | -21.523 | -34.865 | 59 | .000 |
| Pair 2 | Total_PoK - Post Self-Regulation | -10.383 | 3.954 | .510 | -11.405 | -9.362 | -20.344 | 59 | .000 |
| Pair 3 | Total_PoK - Post Interaction with Health Professional | -10.683 | 3.886 | .502 | -11.687 | -9.679 | -21.295 | 59 | .000 |
| Pair 4 | Total_PoK - Post Self-Monitoring | 5.050 | 2.873 | .371 | 4.308 | 5.792 | 13.617 | 59 | .000 |
| Pair 5 | Total_PoK - Post Adherence to Recommended Regimen | 1.833 | 3.054 | .394 | 1.044 | 2.622 | 4.650 | 59 | .000 |

This table show that paired difference of post of knowledge and post hypertension self-management behaviour values mean, SD, 95% Confidence Interval of the Difference (lower, upper), T value, DF, significant value, they 60 sample values calculate, pair one post of knowledge & post of self-integration mean value is (-22.833), SD (5.073), SD error mean (.655), 95% confidence interval of the difference lower value is (-24.144) and upper value is (-21.523), T-value is (-34.865), DF (59), significant value (.000), and pair two post of knowledge & post self-regulation mean value is (-10.383), SD (3.954), SD error mean (.510), 95% confidence interval of the difference lower value is (-11.405), upper value is (-9.362), T-value is (-20.344), DF (59), significant value is (.000), and third pair is post of knowledge & post interaction with professionals mean value is (-10.683), SD (3.886). SD error mean (.502), 95% confidence interval of the difference lower value is (-11.687), upper value is (-9.679), T- value is (-21.295), DF (59), significant value is (.000), and four pair is post of knowledge & post self-monitoring mean value is (5.050), SD (2.873), SD error mean (.371), 95% confidence interval of the difference lower value is (4.308), upper value is (5.792), T-value is (13.617), DF (59), significant value is (.000), five pair is post of knowledge & post adherence to recommended regimen mean value is (1.833), SD (3.054), SD error mean (.394), 95% confidence interval of the difference lower value is (1.044), upper value is (2.622), T- value is (4.650). DF (59), significant value is (.000).

The above table gives the t values and P-values of each pair. As we can observe, all the 5 pairs are statistically significantly as P-value < 0.001. Hence, we can conclude that the post knowledge score and the post self-management behaviour scores are significantly associated with each other.

The null hypothesis H_0 is rejected and we accepted H_1 and concluded that there is significant improvement on the self-management behaviour due to increase knowledge on the same at 5 % level of significance.

DISCUSSION & CONCLUSION

The analysis has been recognized and presented under various section like description of demographic variable, pre- and post-test health parameter's in order identify risk factor of cardiovascular diseases, pre and post-test social network educational module on knowledge and self-management behaviour blood pressure control measure among hypertensive peoples, association between the post-test knowledge and self-management behaviour with blood pressure. Therefore, we can conclude that the scores significantly improved in Post compared to Pre scores. Hence, we can conclude that the intervention was very effective and there was a statistically significant difference in the values of the Post values when compared to Pre values.

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Self

ETHICAL CONSIDERATION

A formal ethical approval received from institutional ethical committee. Informed consent was obtained from participants and assured for anonymity.

CONFLICT INTEREST

There is no conflict of interest

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