**CHAPTER FOUR**

**RESULTS**

This chapter presents the analysis of data, results and discussion of findings.

Two hundred and fifty-five (255) healthcare workers in Benue State University Teaching Hospital participated in this study.

4.1 Demographics

The study was carried out amongst Medical Doctors (27.06%), Pharmacists (11.37%), Nurses (36.08%), Medical Lab scientists (13.73%), Pharmacy technicians (5.49%), CHEW/JCHEW (6.27%) working in Benue State University Teaching Hospital, Makurdi (BSUTH). Other demographics characteristics of respondent are shown in table 4.1 below.

Table 4.2: Socio-demographic characteristics

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **Medical Doctors** | **Nurses** | **Pharmacists** | **Medical Laboratory Scientist** | **Pharmacist Technicians** | **CHEW/JCHEW** | **Total** |
| Gender |  |  |  |  |  |  |  |
| Female | 17(24.64%) | 69(75.00%) | 14(48.28%) | 18(51.43%) | 7(50.00%) | 8(50.00%) | 133(52.16%) |
| Male | 52(75.36%) | 23(25.00%) | 15(51.72%) | 17(48.5%) | 7(50.00%) | 8(50.00%) | 122(47.84%) |
|  |  |  |  |  |  |  |  |
| Age |  |  |  |  |  |  |  |
| 21-30 | 25(36.23%) | 35(38.04%) | 18(62.07%) | 21(60.00%) | 12(85.71%) | 11(68.75%) | 122(47.84%) |
| 31-40 | 28(40.58%) | 29(31.52%) | 5(17.24%) | 10(28.57%) | 2(14.29%) | 5(31.25%) | 79(30.98%) |
| 41-50 | 15(21.74%) | 17(18.48%) | 3(10.34%) | 4(11.43%) | 0(0.00%) | 0(0.00%) | 39(15.29%) |
| 51-60 | 1(1.45%) | 11(11.96%) | 3(10.34%) | 0(0.00%) | 0(0.00%) | 0(0.00%) | 15(5.88%) |
| Years of Experience | |  |  |  |  |  |  |
| 11-15 years | 10(14.49%) | 8(8.70%) | 3(10.35%) | 3(8.57%) | 0(0.00%) | 0(0.00%) | 24(9.41%) |
| 16-20 years | 5(7.25%) | 7(7.61%) | 0(0.00%) | 1(2.86%) | 0(0.00%) | 0(0.00%) | 13(5.10%) |
| 21 years and above | 2(2.90%) | 14(15.22%) | 4(13.79%) | 0(0.00%) | 0(0.00%) | 0(0.00%) | 20(7.84%) |
| 6-10 years | 21(30.43%) | 24(26.09%) | 3(10.34%) | 13(37.14%) | 3(21.43%) | 5(31.25%) | 69(27.06%) |
| Less than 5 years | 31(44.93%) | 39(42.39%) | 19(65.52%) | 18(51.45%) | 11(78.57%) | 11(68.75%) | 129(50.59%) |
| Degree |  |  |  |  |  |  |  |
| College of Health Technology | 0(0.00%) | 4(4.35%) | 0(0.00%) | 2(5.71%) | 13(92.86%) | 13(81.25%) | 32(12.55%) |
| Fellowship | 6(8.7%) | 0(0.00%) | 5(17.24%) | 0(0.00%) | 0(0.00%) | 0(0.00%) | 11(4.31%) |
| First Degree (University) | 39(56.52) | 34(36.96%) | 24(82.76%) | 22(62.86% | 1(7.14%) | 1(6.25%) | 121(47.45%) |
| Masters | 16(23.19%) | 4(4.35%) | 0(0.00%) | 7(20.00%) | 0(0.00%) | 0(0.00%) | 27(10.59%) |
| Others | 3(4.35%) | 3(3.26%) | 0(0.00%) | 4(11.43%) | 0(0.00%) | 2(12.5%) | 12(4.71%) |
| Ph.D. | 5(7.25%) | 0(0.00%) | 0(0.00% | 0(0.00%) | 0(0.00%) | 0(0.00%) | 5(1.96%) |
| School of Nursing/Midwifery | 0(0.00%) | 47(51.09%% | 0(0.00% | 0(0.00%) | 0(0.00%) | 0(0.00%) | 47(18.43%) |

Table 4.3a: Knowledge of HPV vaccination and cervical cancer amongst healthcare professionals in BSUTH

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **Medical Doctors** | **Nurses** | **Pharmacists** | **Medical Laboratory Scientist** | **Pharmacist Technicians** | **CHEW/JCHEW** | **Total** |
| Cervical cancer is a major cause of cancer related morbidity and mortality in women |  |  |  |  |  |  |  |
| Yes | 67(97.1%) | 88(95.65%) | 25(86.21%) | 35 (100%) | 14 (100%) | 15 (93.75%) | 244(95.69%) |
| No | 2 (2.9%) | 4 (4.35%) | 4 (13.79%) | 0 (0.00%) | 0 (0.00%) | 1 (6.25%) | 11 (4.31%) |
| The Human Papilloma Virus causes Cervical Cancer |  |  |  |  |  |  |  |
| Yes | 69 (100%) | 90(97.83%) | 27 (93.1%) | 34 (97.14%) | 14 (100%) | 15 (93.75%) | 249(97.65%) |
| No | 0 (0.00%) | 2 (2.17%) | 2 (6.9%) | 1 (2.86%) | 0 (0.00%) | 1 (6.25%) | 6 (2.35%) |
| The Human Papilloma Virus also causes anal, vulva, penile, vaginal and oropharyngeal cancers |  |  |  |  |  |  |  |
| Yes | 68(98.55%) | 79(85.87%) | 23 (79.31%) | 34 (97.14%) | 12 (85.71%) | 14 (87.5%) | 230 (90.2%) |
| No | 1 (1.45%) | 13(14.13%) | 6 (20.69%) | 1 (2.86%) | 2 (14.29%) | 2 (12.5%) | 25 (9.8%) |
| Receiving the Human Papilloma Virus (HPV) Vaccine prevents cervical cancer |  |  |  |  |  |  |  |
| Yes | 64(92.75%) | 88(95.65%) | 25 (86.21%) | 30 (85.71%) | 13 (92.86%) | 12 (75%) | 232(90.98%) |
| No | 5 (7.25%) | 4 (4.35%) | 4 (13.79%) | 5 (14.29%) | 1 (7.14%) | 4 (25%) | 23 (9.02%) |
| Receiving certain types of the Human Papilloma Virus (HPV) Vaccine prevents anal, vulva, penile, vaginal and oropharyngeal cancers |  |  |  |  |  |  |  |
| Yes | 64(92.75%) | 79(85.87%) | 20 (68.97%) | 33 (94.29%) | 12 (85.71%) | 15 (93.75%) | 223(87.45%) |
| No | 5 (7.25%) | 13(14.13%) | 9 (31.03%) | 2 (5.71%) | 2 (14.29%) | 1 (6.25%) | 32 (12.55%) |

Table 4.3b: Training and Trustworthy source of information of HPV amongst healthcare professionals in BSUTH

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Variable** | **Medical Doctors** | **Nurses** | **Pharmacists** | **Medical Laboratory Scientist** | **Pharmacist Technicians** | **CHEW/JCHEW** | **Total** |
| **You have received training about the HPV vaccine** |  |  |  |  |  |  |  |
| Yes | 48(69.57%) | 50(54.35%) | 9 (31.03%) | 18 (51.43%) | 6 (42.86%) | 8 (50.00%) | 139(54.51%) |
| No | 21 (30.43%) | 42 (45.65%) | 20 (68.97%) | 17 (48.57%) | 8 (57.14%) | 8 (50.00%) | 116(45.49%) |
|  |  |  |  |  |  |  |  |
| **Do you have a trustworthy source of information on HPV?** |  |  |  |  |  |  |  |
| Yes | 61 (88.41%) | 69 (75.00%) | 19 (65.52%) | 22 (62.86%) | 8 (57.14%) | 10 (62.50%) | 189(74.12%) |
| No | 8 (11.59%) | 23 (25.00%) | 10 (34.48%) | 13 (37.14%) | 6 (42.86%) | 6 (37.50%) | 66 (25.88%) |

Table 4.3c: Trustworthy sources of knowledge for HPV vaccination amongst BSUTH healthcare workers.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Sources** | **Medical Doctors** | **Nurses** | **Pharmacists** | **Medical Laboratory Scientist** | **Pharmacist Technicians** | **CHEW/JCHEW** | **Total** |
| Journals | 38 (55.07%) | 41(44.57%) | 16 (55.17%) | 12 (34.29%) | 1 (7.14%) | 6 (37.5%) | 114 (44.71%) |
| Conferences/Workshops/Trainings | 50 (72.46%) | 43 (46.74%) | 9 (31.03%) | 15 (42.86%) | 3 (21.43%) | 3 (18.75%) | 123 (48.24%) |
| Social media videos and posts | 24 (34.78%) | 38 (41.3%) | 15 (51.72%) | 13 (37.14%) | 5 (35.71%) | 9 (56.25%) | 104 (40.78%) |
| Television/Radio | 18 (26.09%) | 33 (35.87%) | 5 (17.24%) | 12 (34.29%) | 4 (28.57%) | 5 (31.25%) | 77 (30.2%) |
| Other Colleagues | 18 (26.09%) | 24 (26.09%) | 10 (34.48%) | 9 (25.71%) | 3 (21.43%) | 6 (37.5%) | 70 (27.45%) |
| I have not sort information abo about the HPV vaccine | 2 (2.90%) | 8 (8.7%) | 4 (13.79%) | 2 (5.71%) | 3 (21.43%) | 0 (0.00%) | 19 (7.45%) |

4.3d: Overall knowledge level of Health Care professionals in Benue State University Teaching Hospital

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Knowledge Level | Medical Doctors | Nurses | Pharmacists | Medical Laboratory Scientists | Pharmacy  Technicians | CHEW/JCHEW | Total |
| Good | 69 (100.00%) | 88 (95.65%) | 25 (86.21%) | 35 (100.00%) | 13 (92.86%) | 15 (93.75%) | 245 (96.08%) |
| Poor | 0 (0.00%) | 4 (4.35%) | 4 (13.79%) | 0 (0.00%) | 1 (7.14%) | 1 (6.25%) | 10 (3.92%) |

Table 4.4: Showing the perception of Health Care Professionals in BSUTH towards safety concerns of HPV vaccine

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Questions | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree | Mean Score |
| The HPV vaccine is safe for use | 86 (33.73%) | 145 (56.86%) | 19 (7.45%) | 4 (1.57%) | 1 (0.39%) | 4.22 |
| The HPV Vaccine is safe for use in women who intend having children (women of childbearing age) | 8 (0.03%) | 73 (0.29%) | 26 (0.1%) | 146 (0.57%) | 2 (0.01%) | 4.10 |
| Adverse effects such as deformities and paralysis are not seen with the HPV vaccine use because it is safe. | 11 (4.31%) | 46 (18.04%) | 49 (19.22%) | 148 (58.04%) | 1 (0.39%) | 3.89 |
| Mild side effects which are often resolved with little or no treatment are seen with HPV vaccine use because it is safe. | 3 (1.18%) | 58 (22.75%) | 43 (16.86%) | 151 (59.22%) | 0(0.00%) | 4.04 |

Table 4.5: Hesitancy and Attitude of health workers in BSUTH towards HPV vaccines

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Questions | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree | Mean Score |
| There are already too many vaccines on the immunization schedule in Nigeria to add the HPV Vaccine. | 13 (5.1%) | 33 (12.94%) | 15 (5.88%) | 110 (43.14%) | 84 (32.94%) | 2.14 |
| The organizations recommending the HPV vaccine for Nigerian girls have ulterior motives | 6 (2.35%) | 23 (9.02%) | 22 (8.63%) | 114 (44.71%) | 90 (35.29%) | 1.98 |
| The pharmaceutical companies producing the HPV vaccines have ulterior motives | 12 (4.71%) | 16 (6.27%) | 29 (11.37%) | 108 (42.35%) | 90 (35.29%) | 2.03 |
| You are against the use of HPV Vaccine due to religious/cultural reasons | 3 (1.18%) | 8 (3.14%) | 10 (3.92%) | 124 (48.63%) | 110 (43.14%) | 1.71 |
| The HPV vaccine causes promiscuity in girls | 6 (2.35%) | 15 (5.88%) | 21 (8.24%) | 106 (41.57%) | 107 (41.96%) | 1.85 |
| The controversies surrounding the COVID-19 vaccine have made “new” vaccines such as the HPV vaccine difficult for you to accept. | 21 (8.24%) | 68 (26.67%) | 20 (7.84%) | 89 (34.9%) | 57 (22.35%) | 2.64 |
| You have encountered information discouraging the use of the HPV Vaccine | 22 (8.63%) | 80 (31.37%) | 19 (7.45%) | 85 (33.33%) | 49 (19.22%) | 2.77 |

Table 4.6: The willingness of Health care workers in BSUTH to recommend the vaccine to people

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Questions | Strongly Agree | Agree | Neutral | Disagree | Strongly Disagree | Mean Score |
| You have sufficient information to either recommend or discourage people from taking the HPV vaccine | 58 (22.75%) | 106 (41.57%) | 48 (18.82%) | 36 (14.12%) | 7 (2.75%) | 3.67 |
| You have recommended the HPV Vaccine to someone within the last one (1) year. | 50 (19.61%) | 89 (34.9%) | 24 (9.41%) | 65 (25.49%) | 27 (10.59%) | 3.27 |
| You have discouraged someone from taking the HPV vaccine | 8 (3.14%) | 4 (1.57%) | 11 (4.31%) | 114 (44.71%) | 118 (46.27%) | 1.71 |
| The HPV Vaccine is recommended for both young boys and girls | 64 (25.1%) | 93 (36.47%) | 32 (12.55%) | 34 (13.33%) | 32 (12.55%) | 3.48 |
| Will you be willing to serve as an advocate for HPV vaccination to people within your environment, on your social media handles etc.? | 102 (40%) | 117 (45.88%) | 26 (10.2%) | 7 (2.75%) | 3 (1.18%) | 4.21 |
| You have knowledge of where a person can receive the HPV vaccine in Benue state | 59 (23.14%) | 115 (45.1%) | 25 (9.8%) | 48 (18.82%) | 8 (3.14%) | 3.66 |
| You be willing to recommend the HPV vaccine to eligible people | 108 (42.35%) | 127 (49.8%) | 14 (5.49%) | 4 (1.57%) | 2 (0.78%) | 4.31 |
| You believe that you are well equipped with the knowledge to convince a parent who is hesitant about the HPV vaccine to vaccinate his/her child or ward | 78 (30.59%) | 105 (41.18%) | 36 (14.12%) | 27 (10.59%) | 9 (3.53%) | 3.85 |
| The Human Papilloma Virus (HPV) vaccine has been introduced for free into the national immunization program of Nigeria for girls between 9 to 14years | 94 (36.86%) | 100 (39.22%) | 44 (17.25%) | 10 (3.92%) | 7 (2.75%) | 4.04 |
| The HPV Vaccine is necessary. However, the vaccine is not accessible | 37 (14.51%) | 87 (34.12%) | 55 (21.57%) | 49 (19.22%) | 27 (10.59%) | 3.23 |

Table 4.6a: Sources of information discouraging the use of the HPV Vaccine

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sources | Medical Doctors | Nurses | Pharmacists | Medical Laboratory Scientists | Pharmacy Technicians | CHEW/JCHEW | Total |
| Social media videos and Posts (WhatsApp, Facebook, YouTube, Instagram etc.) | 26 (37.68%) | 27 (29.35%) | 5 (17.24%) | 6 (17.14%) | 2 (14.29%) | 4 (25%) | 70 (27.45%) |
| Conferences/Workshops/Trainings | 1 (1.45%) | 7 (7.61%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) | 1 (6.25%) | 9 (3.53%) |
| Colleagues | 19 (27.54%) | 22 (23.91%) | 2 (6.9%) | 7 (20%) | 1 (7.14%) | 8 (50%) | 59 (23.14%) |
| Radio/Television/News Papers | 4 (5.8%) | 10 (10.87%) | 0 (0.00%) | 1 (2.86%) | 2 (14.29%) | 1 (6.25%) | 18 (7.06%) |
| Journals | 1 (1.45%) | 5 (5.43%) | 2 (6.9%) | 0 (0.00%) | 0 (0.00%) | 0 (0.00%) | 8 (3.14%) |

Table 5a: Association between socio-demographic variables and knowledge

|  |  |  |  |
| --- | --- | --- | --- |
| Variables | X² | P-value | Interpretation |
| Age | 24.148 | 2.327 e-05 | No significant association |
| Gender | 0.000 | 1.0 | No significant association |
| Qualification | 8.329 | 0.215 | No significant association |
| Experience | 15.655 | 0.004 | There is a significant association |

Table 5b: Association between socio-demographic variables and safety

|  |  |  |  |
| --- | --- | --- | --- |
| Variables | X² | P-value | Interpretation |
| Age | 2.707 | 0.439 | No significant association |
| Gender | 0.00 | 1.0 | No significant association |
| Qualification | 4.901 | 0.557 | No significant association |
| Experience | 2.130 | 0.712 | No significant association |

Table 5c: Association between socio-demographic variables and hesitancy level

|  |  |  |  |
| --- | --- | --- | --- |
| Variables | X² | P-value | Interpretation |
| Age | 5.400 | 0.145 | No significant association |
| Gender | 0.211 | 0.646 | No significant association |
| Qualification | 27.13 | 0.0001 | There is significant association |
| Experience | 3.533 | 0.473 | No significant association |

Table 5d: Association between socio-demographic variables and willingness

|  |  |  |  |
| --- | --- | --- | --- |
| Variable | X² | P-value | Interpretation |
| Age | 4.721 | 0.193 | No significant association |
| Gender | 0.651 | 0.420 | No significant association |
| Qualification | 4.605 | 0.595 | No significant association |
| Experience | 2.130 | 0.711 | No significant association |

Fig 1:

Fig 2:

Fig 3: