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Across-Sectional Survey of Age-Related Knowledge and Attitude toward Oral Implants among Patients in Nandurbar District

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ABSTRACT

Aim: Toevaluateage-relatedknowledgeandattitudetowarddentalimplantsamongpatientsinNandurbardistrict.Dentalimplantsareapredictableandlong-termtreatmentmodalityforreplacementofmissingteeth[1].Despitehighsuccessrates,awarenessandacceptanceremaininfluencedbycost,fearofsurgery,andlackofinformation[2].

MaterialsandMethods: Across-sectionalsurveywasconductedamong121patientsaged≥15yearsusingastructuredquestionnaireassessingawareness,knowledge,perceivedbarriers,andwillingnessforimplanttherapy.DatawereanalyzedusingdescriptivestatisticsandChi-squaretest($p<0.05$).

Results: Awarenesswasreportedby60.33%ofparticipants.Highcost(50.41%)andfearofsurgery(32.23%)werethemainbarriers.Despitelimiteddetailedknowledge,66.12%werewillingtochooseimplanttherapy.

Conclusion: Patientsdemonstratedmoderateawarenessandafavorableattitudetowarddentalimplants.Financialandpsychologicalfactorsremainsignificantbarrierstoacceptance.

Keywords: Dentalimplants,awareness,attitude,cross-sectionalstudy.

I. INTRODUCTION

Toothlossremainsamajorpublichealthconcernglobally andsignificantlyimpactsoralfunction,speech,esthetics,andpsychologicalwell-being[4] .Lossofnaturalteethleadstoprogressivealveolarboneresorption,alteredocclusion,migrationofadjacentteeth,supra-eruptionofantagonists,andtemporomandibularjointdysfunction[5] .Theseconsequencescompromisebothfunctionalefficiencyandqualityoflife.Conventionalprostheticrehabilitationmethodsincluderemovablepartialdenturesandfixeddentalprostheses.Althoughtheseoptionsrestorefunction,theyhaveinherentlimitationssuchascompromisedretention,damagetoadjacentteeth,andcontinuedboneresorption[6] .

Theintroductionofosseointegrateddentalimplantsby Brånemarkrevolutionizedprosthodonticrehabilitation[1].Osseointegrationreferstoadirect,intimateconnectionbetweenbonetissueandimplantsurfacewithoutinterveningfibroustissue[1].Long-termclinicalinvestigationshavedemonstratedsurvivalratesof90–95%over10–15years,establishingimplantsasapredictableanddurabletreatmentmodality[7] ,[8] .Implant-supportedprosthesesprovidenumerousadvantages:

- Preservationofadjacentnaturalteeth
- Improvedmasticatoryefficiency
- Maintenanceofalveolarbonevolume
- Enhancedestheticsandphonetics
- Improvedpatientsatisfactionandconfidence[9]

Despitetheseadvantages,implanttherapyuptakeremainssuboptimalinmanydevelopingregions.Awarenessandknowledgelevelsareinfluencedbyeducationalbackground,socioeconomicstatus,accesstodentalcare,andculturalperceptions[2],[10] .Financialcostisconsistentlyreportedasthemostsignificantdeterrenttoimplantacceptance[11].Additionally,fearofsurgicalprocedures,misconceptionsaboutpain,anduncertaintyaboutlong-termsuccessfurtherdiscouragepatients[12].Nandurbardistrictrepresentsasemi-urbanandruralpopulationmix,whereaccesstoadvanceddentalcaremaybelimited.Therefore,assessingpublicknowledgeandattitudetowarddentalimplantsisessentialforidentifyingeducationalgapsanddesigningeffectiveawarenessstrategies.

II. MATERIALS AND METHODS

StudyDesign:Adescriptivecross-sectionalsurveydesignwasadopted.

StudyPopulation:Thestudyincluded121patientsattendingdentalclinicsinNandurbardistrictoveradefinedstudyperiod.

SamplingMethod:Conveniencesamplingwasuseddu

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etoaccessibilityofparticipantsattendingoutpatientdentalclinics.

InclusionCriteria:
Patientsaged≥15yearsPatientswillingtoprovideinformedconsent

ExclusionCriteria:
Individualsunabletounderstandquestionnairecontent
Patientswithcognitiveimpairment

QuestionnaireDesign:
Thequestionnairewasdesignedafterreviewingpreviousvalidatedsurveys[2,13,14] .Itconsistedof20close-endedquestionscategorizedinto:

- Demographicvariables(age,gender,education)
- Awarenessofdentalimplants
- SourceofinformationK
- nowledgeregardingplacementsite
- Expectedlongevity
- Maintenancerequirements
- Perceiveddisadvantages
- Willingnesstoaccepttreatment
- Pilottestingwasconductedtoensureclarityandreliability.

DataCollection:
Datawerecollectedusingboth:
Self-administeredquestionnaireInterview-basedmethod(forparticipantswithlimitedliteracy)

StatisticalAnalysis:
Datawereenteredintospreadsheetsoftwareandanalyzedusingdescriptivestatistics(frequencyandpercentage).Chisquaretestwasappliedtoassessassociationbetweenageandawareness.Statisticalsignificancewassetatp<0.05.

Astructured,pre-testedquestionnaireconsistingof20close-endedquestionswasused.Thequestionnairewasdividedintothefollowingsections:

Section1:DemographicDetails
1.Age
15–30years 31–50years
Above50years

2.Gender Male
Female

3.Doyouhaveanymissingteeth? Yes
No

4.Doyouthinkreplacementofmissingteethisimportant? Veryimportant
Somewhatimportant
Neitherimportantnorunimportant
Notimportantatall

5.Howwellinformedareyouaboutdifferentwaysofreplacingmissingteeth? Verywell
Moderatelywell Notatall

6.Haveyoueverheardaboutdentalimplants?
Agreatdeal
SomewhatheardVerylittle
Notatall

Section2:KnowledgeandAwareness
7.Ifyes,wheredidyougetinformationaboutimplants?
Dentist
Newspaper
Friendsandacquaintances Other

8.Accordingtoyou,whatisadentalimplant? Screw
Pieceofmetal Neverheard
Heardbutcannotexplain

9.Wouldyouliketoknowmoreaboutimplants?
Yes
No

Section3:SourceofInformation&ProfessionalPerception
10.Fromwherewouldyouliketoreceiveinformationaboutimplants?11.Doyouthinkadentistprovidingimplanttreatmentisbetterqualified?12.Wouldyoulikeyourdentisttoprovideimplants?

Section4:KnowledgeaboutProcedureandLongevity13.Whereinthejawareimplantsplaced?
14.Howlongdoyouthinkanimplantlasts?
15.Howmuchareyoupreparedtopayforanimplant?

Section5:OralHygieneandMaintenance
16.Whatoralhygienecareisrequiredforimplantscomparedtonaturalteeth?

Section6:ProfessionalConfidenceandPerception
17.Doyouthinkyourdentistusesup-to-dateimplanttechniques?
18.Whataretheadvantagesofnon-removabledenturesoverremovableones?19.Whatarethedisadvantagesofimplant-supporteddentures?
20.Wouldyouchooseimplanttherapytoreplacemissingteeth?

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III. RESULT

DemographicDistribution:
Themajorityofparticipants(43.80%)belongedtothe31–50yearsagegroup,followedbyyounger(15–30years)andolder(>50years)groups.Genderdistributionwasnearlyequal.

AwarenessLevel:60.33%ofparticipantsreportedawarenessofdentalimplants,whereas39.67%hadnopriorknowledge.Awarenesswassignificantlyhigherinmiddle-agedindividuals,possiblyduetoincreaseddentaltreatmentneeds.
SourceofInformation:Dentistswerethemostcommonsourceofinformation,followedbysocialcontactsandmedia.Thisemphasizesthecentralroleofdentalprofessionalsindisseminatingaccurateknowledge[15] .
KnowledgeAboutImplantPlacement:Only43.80%correctlyidentifiedthejawboneasthesiteofimplantplacement.Manyparticipantsbelievedimplantswereattachedtogumsoradjacentteeth,indicatingincompleteunderstand

KnowledgeAboutLongevity:Responsesvariedwidely,rangingfrom5yearstolifetimeexpectancy.Thissuggestsaneedforpatienteducationregardingimplantsurvivalrates,whichhavebeenreportedtoexceed90%overlong-termfollow-up[7] .

PerceivedBarriers:Highcost–50.41%Fearofsurgery–32.23%Longtreatmentduration–17.36%Thesefindingsareconsistentwithglobalsurveysreportingcostastheprimarylimitingfactor[11].

WillingnesstoAcceptTreatment:66.12%expressedwillingnesstoundergoimplanttherapyifrecommended,suggestingapositiveattitudewhenadequateawarenessisprovided.

IV. DISCUSSION

Thepresentstudydemonstratedmoderateawarenesslevelssimilartostudiesconductedincomparablepopulations[2],[13].
Theprominentroleofdentistsasinformationproviders highlightstheimportanceofpatientcounselingandchairsideeducation.
Structuredcommunicationregardingproceduralsteps, anesthesia,andsuccessratescanreduceanxiety[12].
Costremainsasignificantobstacle.Implanttherapyinvolvessurgicalplacement,prostheticcomponents,radiographicassessment,andmaintenancevisits,contributingtohigheroverallexpenditure[11].Introductionofaffordableimplantsystemsandinstallment-basedpaymentmodelsmayenhanceaccessibility.
Fearofsurgeryisanotherimportantfactor.Dentalanxietyhasbeenwidelydocumentedasabarriertoinvasivepr ocedures[16] .Educationregardingminimallyinvasivetechniquesandpaincontrolprotocolsmayreduceapprehension.
Therelativelyhighwillingnessratesuggeststhatawarenessprogramsandfinancialsupportsystemscouldsignificantlyincreaseimplantacceptanceinthisregion.

V. CONCLUSION

Withinthelimitationsofthiscross-sectionalstudy,patientsinNandurbardistrictexhibitmoderateawarenessandgenerallyfavorableattitudestowarddentalimplants.
However,detailedknowledgeregardingproceduralaspects,longevity,andmaintenanceremainsinadequate.
Financialconstraintsandfearofsurgicalinterventionarethemostsignificantbarriers.
Implementationofstructuredcommunity-basedawarenessprograms,improveddentist-patientcommunication,andcosteffectivetreatmentmodelsareessentialtopromotewideradoptionofimplant therapy.

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