

Nurse Education: Utilizing Acetaminophen and NSAIDs to Reduce Postoperative Opioid Consumption After Orthopedic Surgery

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Background

- **2016** - Health and Human Services reported 42,000 deaths from opioid overdose
- Orthopedic surgeons contribute ~ 7.7% to total amount of opioids prescribed
- **Enhanced Recovery After Surgery (ERAS)** - utilizes multimodal pain management protocol capable of decreasing opioid use through around-the-clock (ATC) acetaminophen and NSAIDs
- Pain management education for PACU nurses - less reliance on opioids

Literature Review

- **Four main themes:** prescribing habits of physicians, multimodal analgesia, education for patients after orthopedic surgery, and nursing education

Purpose and Aims

- **Assess** PACU nurses' attitudes towards adopting a new evidence-based practice (EBP)
- **Identify** gaps in knowledge regarding understanding of the ERAS pain management protocol
- **Formulate** an educational intervention based on gaps identified

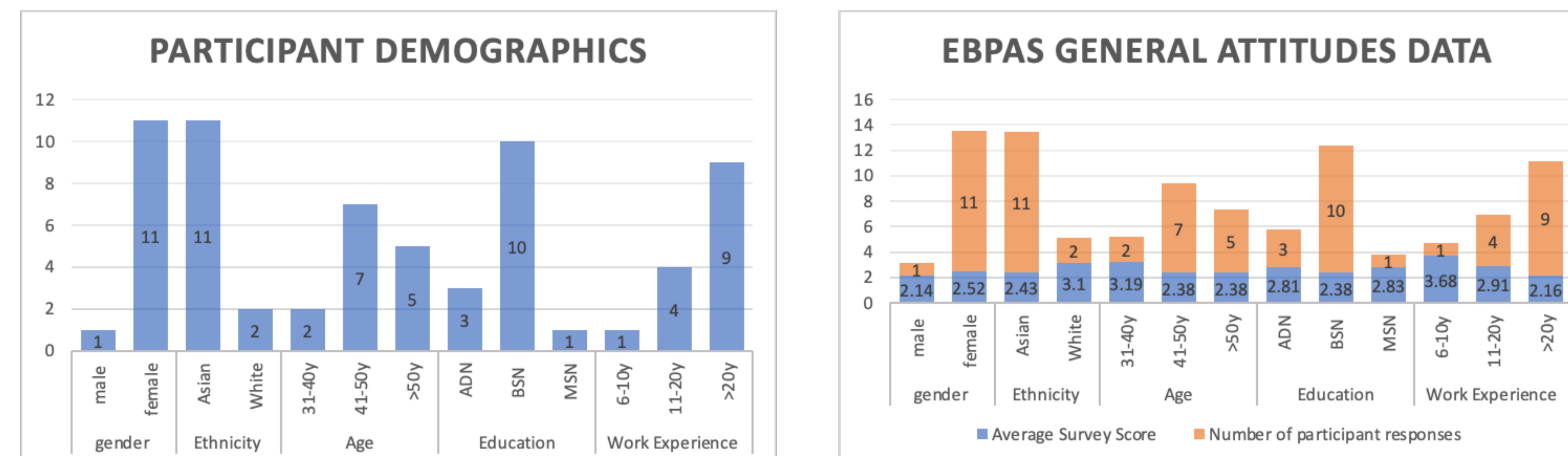
Methods

- **Design:** Descriptive cross-sectional design with educational intervention development
- **Setting:** Single, acute-care hospital in Orange County, California
- **Sample:** A convenience sample of 14 PACU registered nurses
- **Implementation:** Evidence Based Practice Attitude Scale (EBPAS), demographic survey, and 3 qualitative questions to identify ERAS knowledge gaps with overall response rate of 41%

Framework: IOWA Theoretical Model

- Ensures better evaluation and understanding of successes and failures when implementing an evidence based practice change
- Eight steps include, triggering issue/opportunity identification, the priority of the topic assessment, team formation, body of evidence assembly/appraisal/synthesis, sufficiency of evidence determination, practice change pilot/ implementation, and evaluation

Results



*EBPAS scoring: a score >2 indicated positive attitudes <2 indicated negative attitudes

Attitude Subscales Results

- Nurses more open to change if given necessary knowledge/skills to support change and if there expectation to use change in routine practice
- **More positive attitudes:** Younger females nurse of White ethnic origin with greater educational attainment and less work experience

Themes Emerged from Qualitative Questions about ERAS Pain Management Protocol:

- **Ineffective:** Protocol ineffective, perception it did not reduce amount of postop narcotics
- **Able to decrease the use of narcotics:** Non-opioid analgesics capable of effectively reducing postop narcotics
- **Able to provide effective pain management:** Non-opioid analgesics effective in managing pain when combined with narcotics and/or light spinal anesthesia
- **Able to hasten patients' recovery:** Protocol results in less recovery time and faster discharge

Primary Knowledge Gap

- Subset of nurses perceived ERAS as ineffective to reduce opioid consumption

Discussion

- Attitude assessment provides better understanding on how healthcare providers respond to change
- Provided valuable metrics to target PACU nurses' educational needs
- Educating nurses may translate to enhanced knowledge and compliance with ERAS and decrease in opioid use
- Age, gender, ethnicity, level of education, and years of work experience can influence nurses' attitudes
- Consideration of demographic variables when adopting ERAS may improve methods to engage nurses who revealed negative attitudes toward ERAS

Educational Intervention

- Addresses identified knowledge gaps, particularly regarding nurses who perceived ERAS as ineffective
- **PowerPoint** - discusses opioid epidemic, importance and efficacy of non-opioid alternatives and how they may reduce opioid consumption, and overall efficacy of ERAS pain protocol

Conclusion

- PACU nurses are essential members of the perioperative team due to uniquely close patient relationship
- Supporting nurses doubtful of ERAS protocol efficacy through knowledge enhancing education may empower them to accept ERAS which can decrease opioid use

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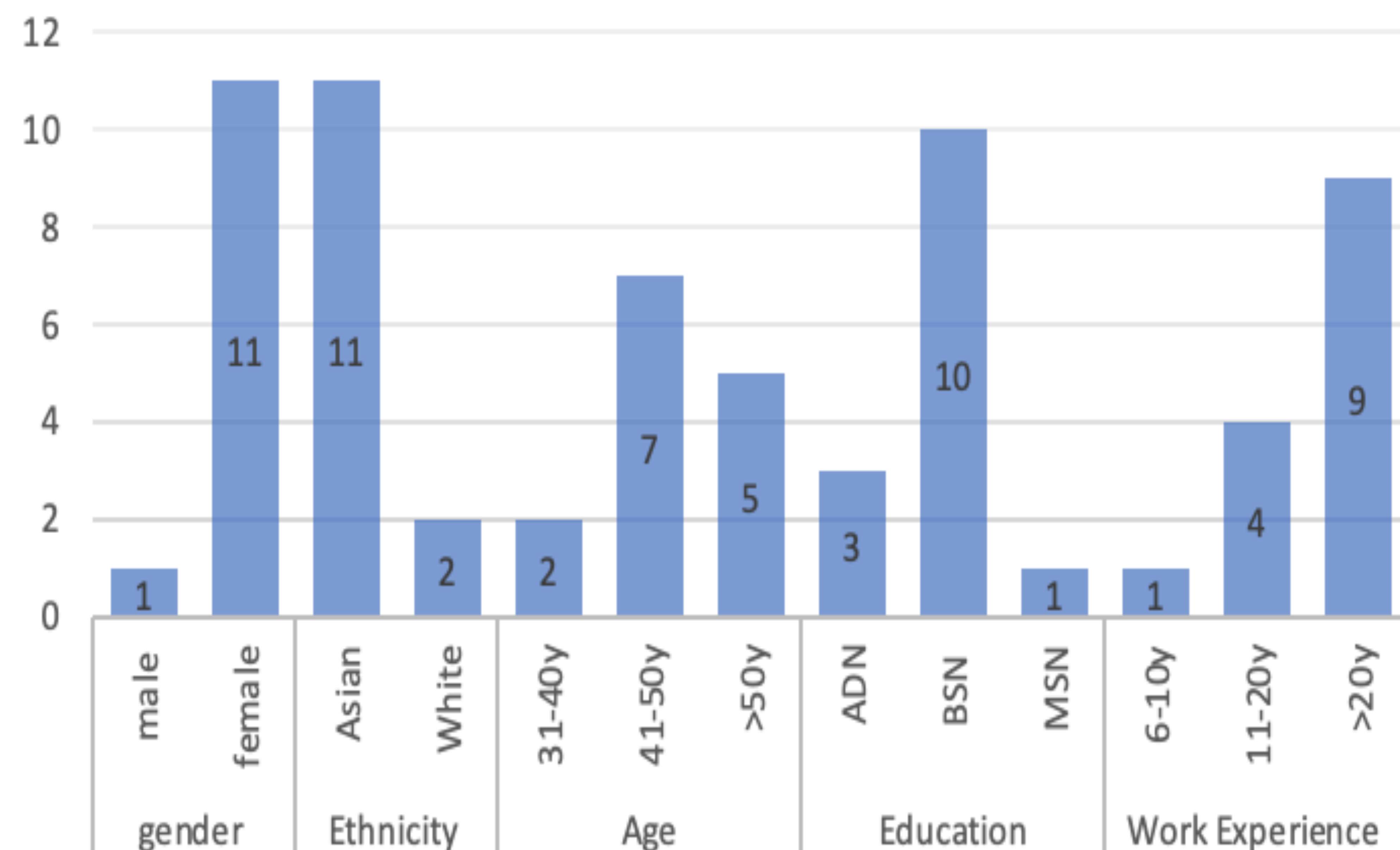
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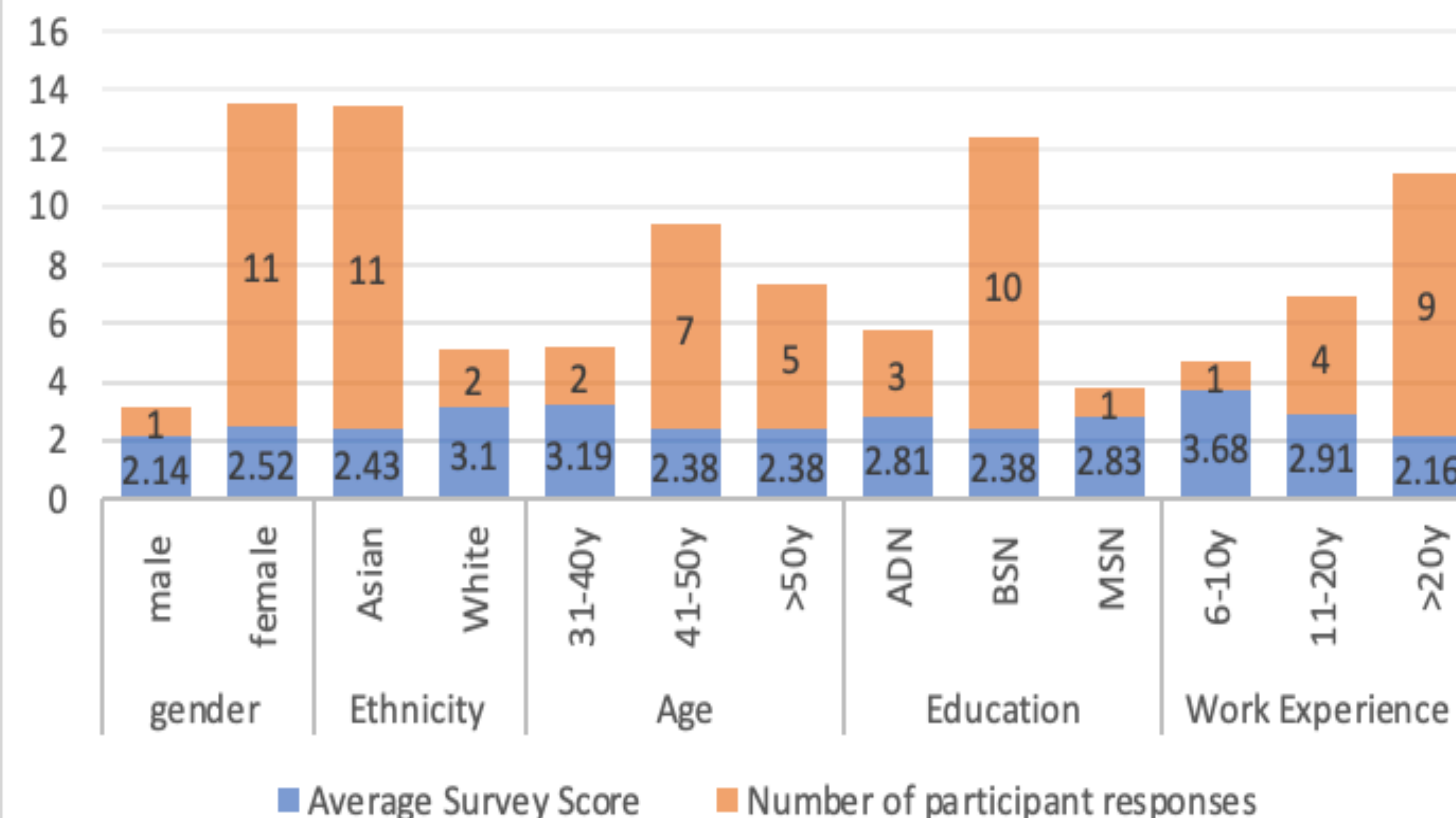
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PARTICIPANT DEMOGRAPHICS



EBPAS GENERAL ATTITUDES DATA



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