

# A SURVEY OF PRIMARY CARE RESIDENTS REGARDING KNOWLEDGE OF HEPATITIS C

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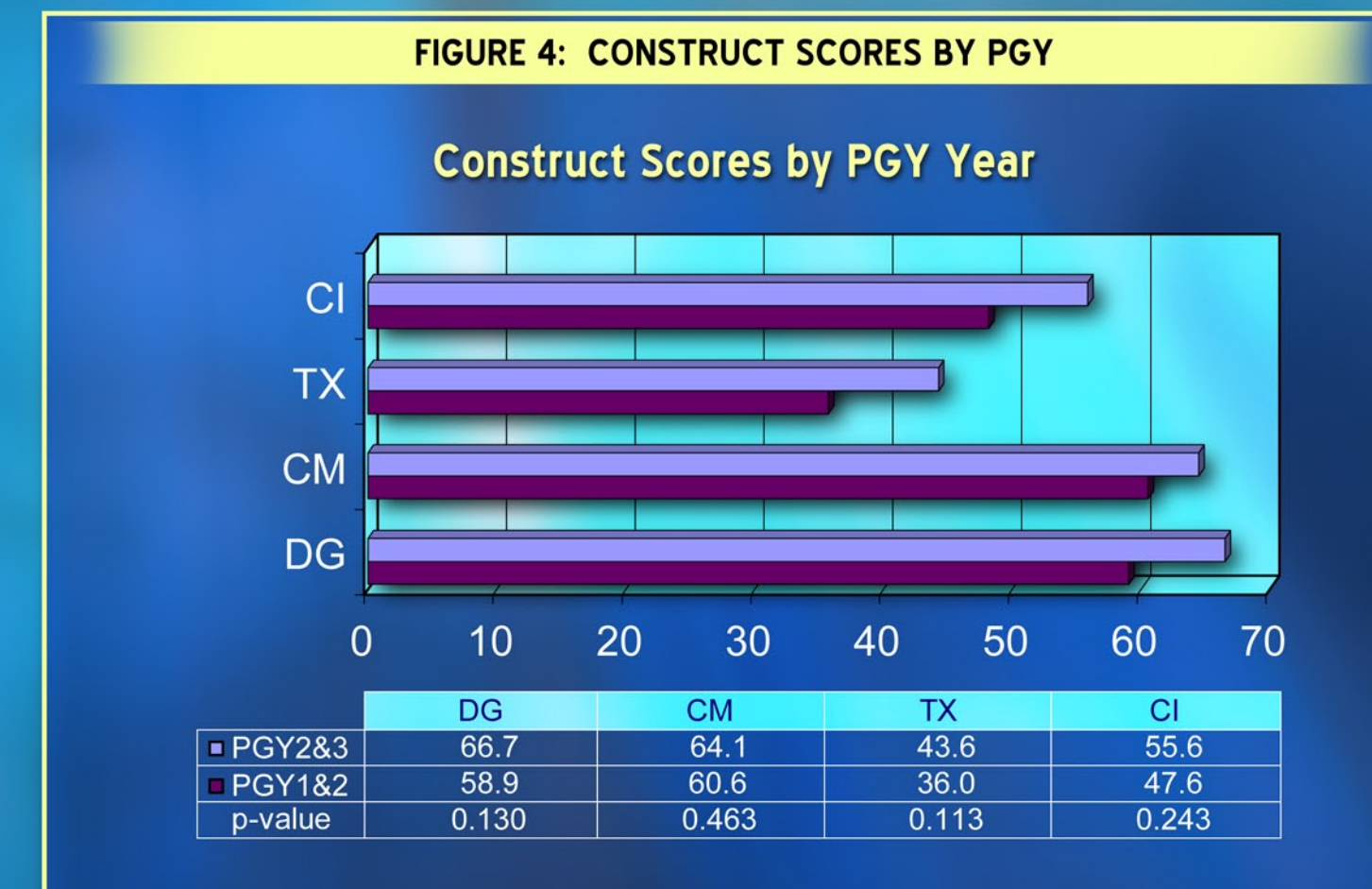
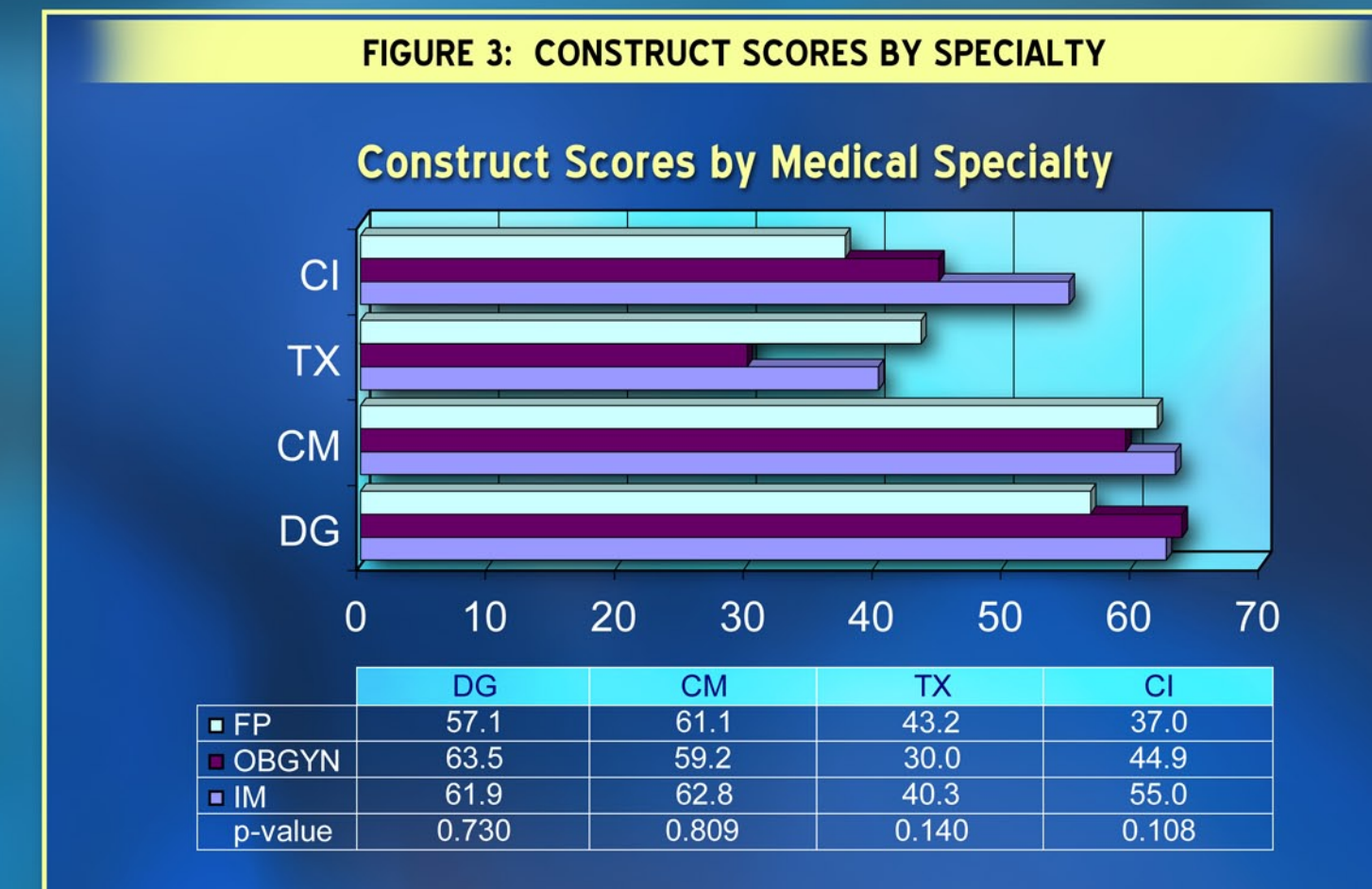
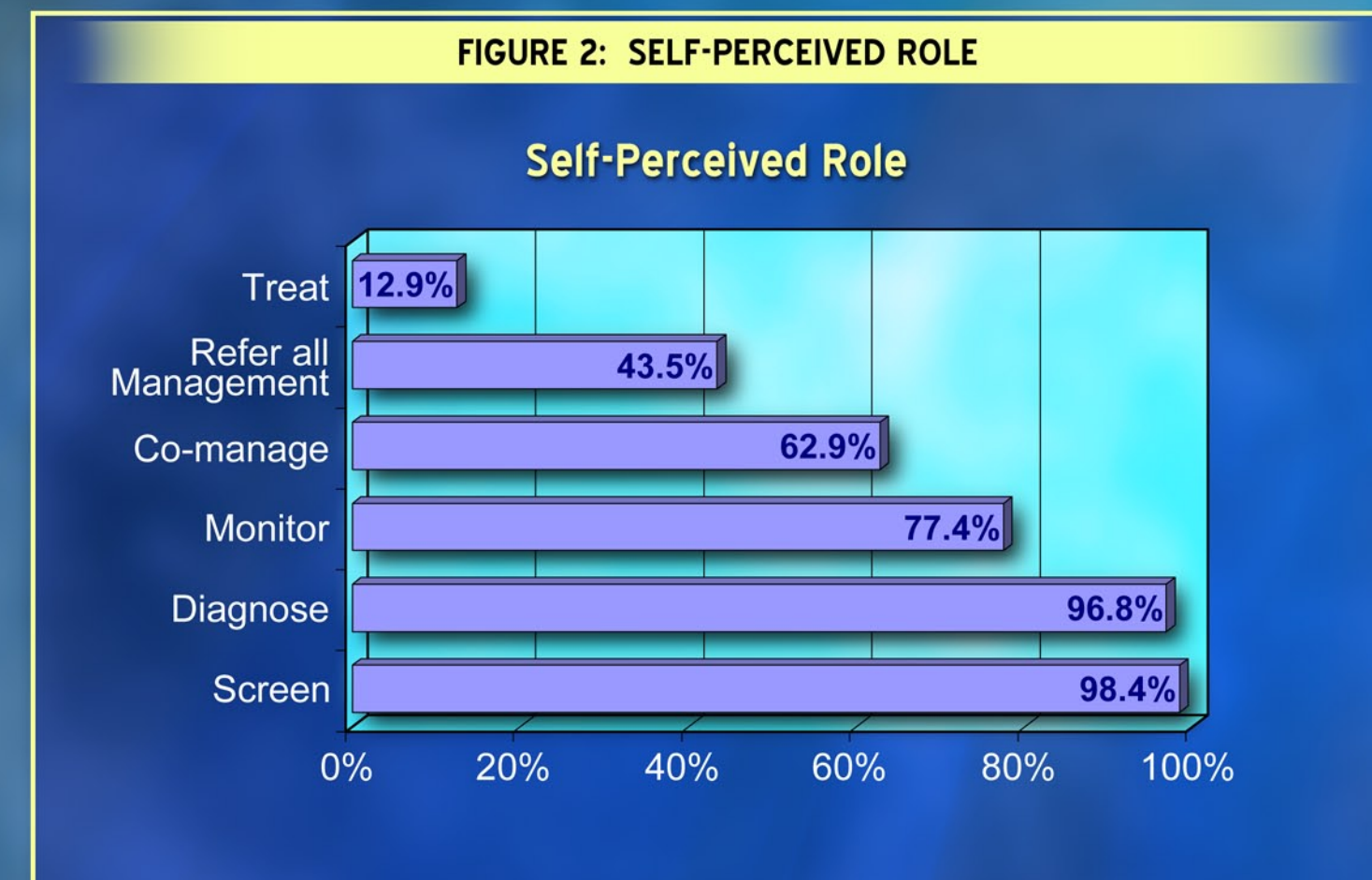
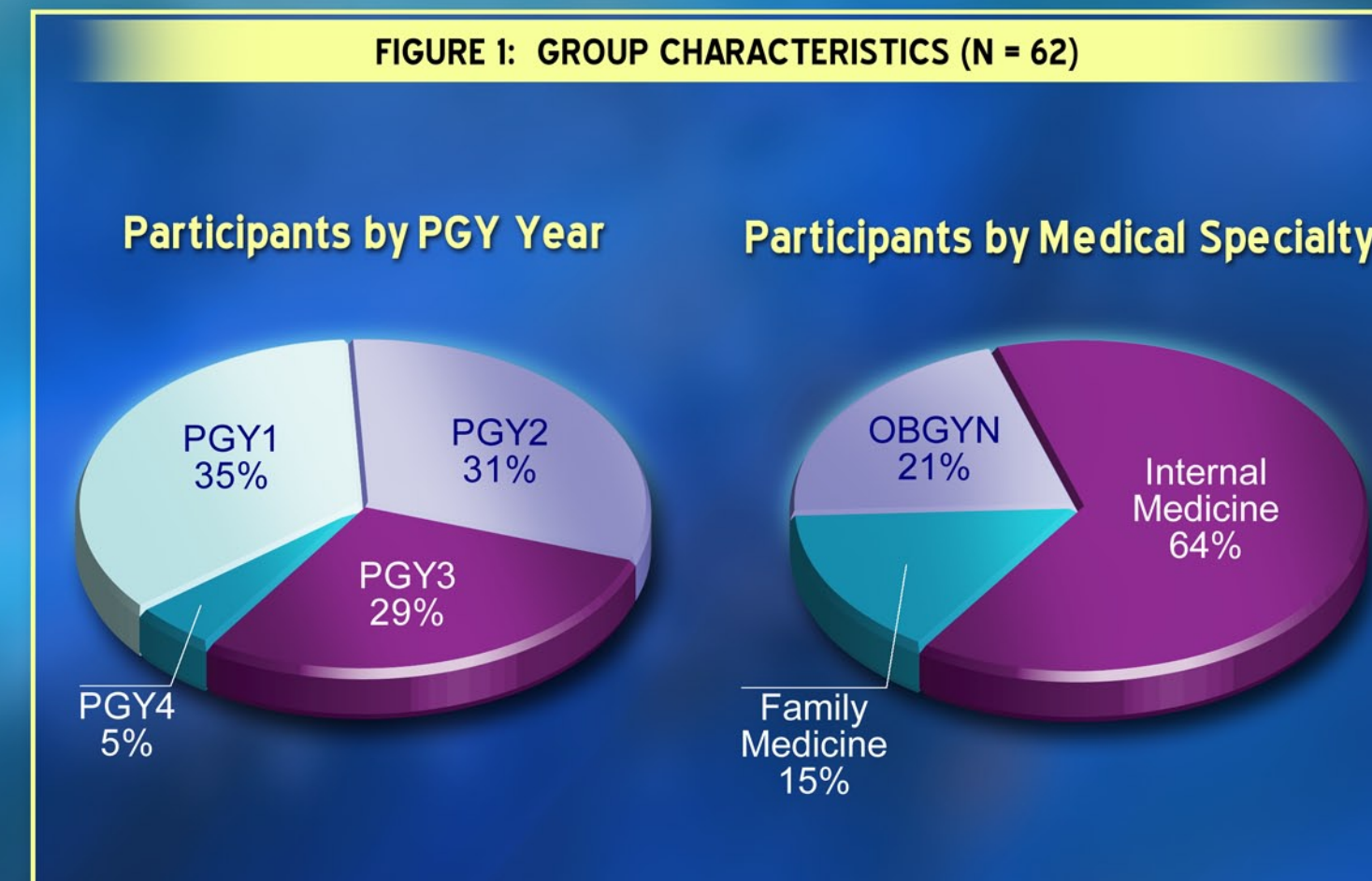
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## BACKGROUND

Hepatitis C (HCV) is the most common blood-borne pathogen in the United States. The prevalence is estimated to be 1.8% (approximately 4 million) of the U.S. population with approximately 30,000 Americans acquiring HCV each year. Up to 85% of patients infected with HCV will develop chronic infection, often asymptomatic, with a variable rate of progression to cirrhosis, liver transplantation, hepatocellular carcinoma, or death. Despite the availability of effective antiviral therapy for chronic HCV, significant knowledge gaps exist among primary care physicians, those who are most likely to encounter patients with HCV and have the opportunity to diagnose and refer them for treatment. Similar deficiencies have been described in primary care training programs. We conducted this survey to assess HCV-related knowledge among our primary care residents in the fields of internal medicine (IM), family practice (FP), and obstetrics-gynecology (OBGYN).

## METHODS

A 21-item questionnaire measuring core awareness and knowledge of HCV was distributed to IM, FP, and OBGYN residents for baseline measurement prior to a two-part HCV educational session. Six primary constructs were addressed: self-perceived role in caring for patients with possible HCV (SPR), screening and diagnosis (SC), barriers to specialist referral (BR), counseling and management (CM), treatment (TX), and contraindications to treating HCV (CI). Constructs were reported as either group percentages of items appropriately selected or as means of participants' averaged score correct on questions within that construct. Multiple response questions were scored as number appropriately selected by the participant divided by total number of appropriate items for that question. Items were deemed appropriate using the American Association for the Study of Liver Disease Guidelines and National Institutes of Health Consensus Statement. Data were analyzed using SPSS 11.5. Student's T-test was used for group comparisons with a p-value at or below 0.05 being considered statistically significant.



## RESULTS

- 83.3% (N = 62) of participants returned questionnaires.
- Residents perceived their primary role to be that of screening (98.4%) and diagnosis (96.8%) of HCV rather than provision of antiviral therapy (12.9%).
- All other construct scores were below 70% regardless of specialty or post-graduate year (PGY). No significant differences were noted between specialties or PGY groups.
- Only 50% appropriately selected ELISA/RIBA as the diagnostic test of choice and 37.1% genotype (GT) 1 as the most common in the U.S.
- 45.2% identified pegylated interferon-alfa and ribavirin as the treatment of choice.
- Few correctly identified the SVR rate of combination therapy in GT 1 (30.6%) and GT 2 & 3 (9.7% & 11.3%).
- More would test for exposure to HIV (98.4%) and HBV (92.1%) than HAV (56.5%), and few knew the correct HAV vaccination schedule (16.1%).
- Most (53.2%) could not correctly identify the rate of vertical transmission from an HCV-infected mother as <10%, and few (30.6%) were aware of current breastfeeding recommendations.

## CONCLUSIONS

- As in previous survey-based studies, we identified many aspects of HCV knowledge that are lacking among our primary care residents, particularly involving diagnostic tests, HAV vaccination recommendations, counseling, and antiviral therapy.
- It is troubling that only half of the participants would correctly order ELISA/RIBA to screen at-risk patients for HCV, while nearly half would order AST/ALT. Laboratory studies are frequently within the normal range in chronic HCV and not recommended for screening purposes.
- Because of reports that super-infection with HAV in patients with chronic HCV has resulted in fulminant hepatitis, it is recommended that all patients with chronic HCV and no preexisting antibody to HAV receive HAV vaccination. Few residents were aware of this recommendation, and the majority were unable to report the correct HAV vaccination schedule.
- Underestimating the efficacy of HCV treatment may represent a significant barrier to diagnosis and treatment. Only half of the respondents were able to identify the standard of care therapy (pegylated interferon-alfa and ribavirin) and the SVR rates associated with their use.
- Knowledge of counseling recommendations regarding condom use, vertical transmission, and the negligible risk of transmission during breastfeeding was also lacking. This is likely due to lack of exposure to this information in training programs.
- Future research includes plans to distribute a follow-up survey 1 to 3 months after an educational intervention for each of the residency groups. We hope to improve knowledge regarding the care of patients infected with HCV among our primary care residents, those who are most likely to have the opportunity to diagnose HCV and refer patients for treatment.