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## CONFERENCE ABSTRACT

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### **Introduction**

Studies have shown that informal caregivers help patients to understand information during clinical encounters, adhere to discharge recommendations, and perform self-care tasks. There is also evidence that patients with informal caregiver have a lower risk of readmission compared with patients without an informal caregiver. Less is known about factors that may affect Informal Caregiver's Ensuring and Explaining Medical Care (ICEEMC) during hospitalization and its impact on improved health outcomes, especially in different cultural groups. This study examined whether ICEEMC during hospitalization mediated the association between minority status of patients and 30-day readmissions. In addition, it was investigated whether levels of Health Literacy (HL) of caregivers moderated this mediated association.

### **Methods**

A prospective cohort study of 517 internal medicine patients, Hebrew (general population, coded as 0) and Russian, or Arabic native speakers (minority status, coded as 1), at a tertiary medical center in central Israel (2013 to 2014), who were accompanied by an informal caregiver. The in-hospital baseline questionnaire included sociodemographic, physical, mental, and functional health status [covariates]. In addition, it included questions about informal caregiver HL [moderator] and amount of ICEEMC (e.g., did he/she communicate with the health care team about the treatment; three items - 1: did not receive any help to 5: received help all the time) taken from the Informal Assistance and Support for Hospitalized Older Adults (ICHOA instrument)) [mediator]. Information on 30-day readmissions [outcome], chronic conditions, and prior hospitalization [covariates] was retrieved from the healthcare organization's data warehouse. Testing a moderated mediation model was conducted using Hayes PROCESS procedure, model 7.

### **Results**

A total of 95 patients (18.4%) were readmitted within 30 days. Logistic regression indicated that minority status was not associated with 30-day readmission when the mediator ICEEMC was not included ( $B=0.98$ ;  $p>0.05$ ). However, moderated mediation analysis indicated significant direct ( $B=-1.08$ ;  $p=0.003$ ) and inconsistent indirect effect of minority status on readmission through high ICEEMC during hospitalization among

patients who had informal caregivers with high HL level (Mediated effect (ME)= - 0.62; CI= -1.07 to -0.29) but not among ones with low HL level (ME= 0.37; CI=-0.24 to 1.06).

### ***Discussions***

These findings suggest that high level of informal caregivers' HL may be an essential factor in improving ICEEMC among minorities, which in turn improves their health outcomes by reducing 30-day readmissions.

### ***Conclusions***

The association between patients' minority status and 30-day readmission is mediated by ICEEMC during hospitalization and depends on high level of informal caregiver HL.

### ***Lessons learned***

Our findings suggest that identifying informal caregivers with high HL levels at time of admission to the hospital and encouraging their involvement during patients' hospital stay might be a useful strategy to improve transitions and reducing 30-day readmission, especially among minority patients.

### ***Limitations***

Generalizability may be limited due to characteristics of the Israeli society. Nonetheless, health practices and outcomes of minority patients are challenging in various healthcare systems worldwide.

### ***Suggestions for future research***

Future studies should explore these findings as an intervention study aimed at improving health practices and outcomes of minority patients.