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QUALITY IMPROVEMENT

A Financial Toxicity Screening and Care Coordination Quality Improvement Program in a Gynecology Oncology Urban Practice

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Authors' disclosures of conflicts of interest are found at the end of this article.

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Abstract

Background: Educating a multidisciplinary team on financial toxicity (FT) risk, screening, and care coordination is an approach to addressing gaps in care among newly diagnosed patients with stage III or IV cancer. **Objective:** The goal of this quality improvement project (QIP) was to supply an education program for the multidisciplinary team providing insights for the following objectives: (1) Increase the rate of FT screening where there was no baseline screening, (2) Increase referrals for resource care coordination among patients experiencing FT, and (3) Evaluate the relationship between FT and selected demographic identifiers during the 8-week project. **Methods:** The Plan-Do-Study-Act (PDSA) model was adopted for learning and leading the change during the QIP, focusing on the COmprehensive Score for financial Toxicity (COST) and resource care coordination for newly diagnosed participants with stage III or IV gynecologic cancer. **Results:** Of the 42 (80.75%) participants consenting to the QIP, 61.90% had COST scores below 23, with 100% (26) of the participants receiving referrals for resource care coordination. On average, 6.50 patients enter the practice for care, with 50% (3.25) reporting FT. At this rate, 162.50 patients were experiencing FT in a 50-week year and were not receiving resource care coordination. However, because some patients did not consent to the QIP, the average FT (Yes) count could potentially be between 199.50 to 225.00 patients in a 50-week year, leading to a potential 62.50 with FT (or 28% of 225.00) not receiving referrals. Age was the main driver for FT COST Score in this QIP. Many variables were unobserved in this QIP and could impact the FT COST Score. However, separate modeling reveals that age alone explains approximately 15% of FT COST scores' observed changes.

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Controlling for more variables may refine the model, but it seems unlikely by the data analysis that age would disappear as a driver of change in the FT COST score. **Conclusion:** Developing a multidisciplinary education program focusing on a structured QIP-PDSA plan can be an example of standardizing an FT screening and care coordination program. The QIP team successfully incorporated a PDSA model roadmap screening program to identify the participants experiencing FT and promptly referred 100% for resource care coordination.

Cancer patients continually face the consequences of adverse effects related to their cancer treatment, especially when it concerns the burden of financial toxicity (FT). Financial toxicity describes the objective financial burden and subjective financial distress experienced by cancer patients due to their care and treatment costs (Zafar et al., 2013). Gynecologic cancer patients are not immune to the risk associated with FT. They are particularly susceptible to financial ruin because of the multiple lines of treatments needed to address their disease (Liang & Huh, 2018). Yet, in a survey of oncology nurse navigators, only half of the patients received financial services with a need to improve collaboration with available resources (Spencer et al., 2017). In addition, there is still considerable variation in cancer care centers regarding financial screening programs and services offered, which is often a significant gap in patient-centered care (Khera et al., 2020). This quality improvement project (QIP) will explore and increase understanding for planning a standardized FT screening and care coordination program by supplying in-depth information vital to developing solutions to close gaps in care.

REVIEW OF LITERATURE

Several studies link FT to cancer patients' nonadherence to treatment, worsening quality of life (QOL), and increased mortality rates (Esselen et al., 2021; Klein et al., 2019; Yabroff et al., 2019). Esselen and colleagues (2021) found that 52% of stage III and IV gynecologic cancer patients had FT, with 49% reporting high FT, correlating with a poor QOL. Over 72% of cancer patients in a study revealed that neither physicians nor their staff had a cost of care discussion (Jagsi et al., 2018). Studies show that health-care organizations recognized the need for these conversations and were willing to incorporate cost conversations in the workflow to address immediate financial hardships that would minimize financial burdens (Fradgley et al., 2019; Henrikson et al., 2019; Perez et al., 2019). Research reveals barriers such as the lack of FT screening (74%), clinician time constraints (67%), and no staff training (66%) are leaving critical gaps in care, with 59% of clinic leads from cancer services indicating a multicomponent implemented program could improve outcomes (Fradgley et al., 2019).

METHODOLOGY

Plan-Do-Study-Act Model

The advanced practice nurse (APN) project coordinator's concentration was on a system of change, and adding the Model for Improvement gave focus as well as insight for a QIP that would require a rigorous application (Institute for Healthcare Improvement [IHI], n.d.; Udod & Wagner, 2018). Implementing the Plan-Do-Study-Act (PDSA) Model of Improvement supplied the roadmap for a successful team-based QIP in a complex health-care system to accelerate change (IHI, n.d.). By carefully planning and implementing FT screening and care coordination, the PDSA model would supply a meaningful resolution to a sustainable program.

Quality Improvement Project Goal and Objectives

The QIP goal supplies an education program for the multidisciplinary team to integrate FT screening and care coordination. The QIP objectives provided insights that would close gaps in the care of patients newly diagnosed with stage III and IV gynecologic cancer over an 8-week QIP timeline. The objectives were to:

1. Increase the rate of FT screening where there was no baseline screening
2. Increase referrals for resource care coordination among patients experiencing FT
3. Evaluate the relationship between FT and selected demographic identifiers (diagnoses, stage, age, ethnicity/race, and residency location).

PLAN PHASE

Developing a QIP design provided a comprehensive process for integrating an FT screening and resource care coordination program into the gynecology oncology practice. PDSA cycle one of the QIP began with the "Plan" followed by the "Do, Study, and Act" phase leading to a description of the solution (QI Essentials Toolkit, n.d.). The APN project coordinator started by addressing solutions to close gaps in care and set out to answer the three PDSA model questions (see Figure 1; IHI, n.d.).

As strategic communication is complex, the planning phase continued with the APN project coordinator completing a gap analysis of patient-centered resource care needs. The APN coordinator led the QIP's vital communication needs and networking to implement the project buy-in from all parties to ensure a change process. In addition, the FT screening and care coordination education program designed by the APN coordinator needed to supply a standardized approach for the multidisciplinary team. The QIP team received a complete FT tool kit (FT checklist, an audio FT

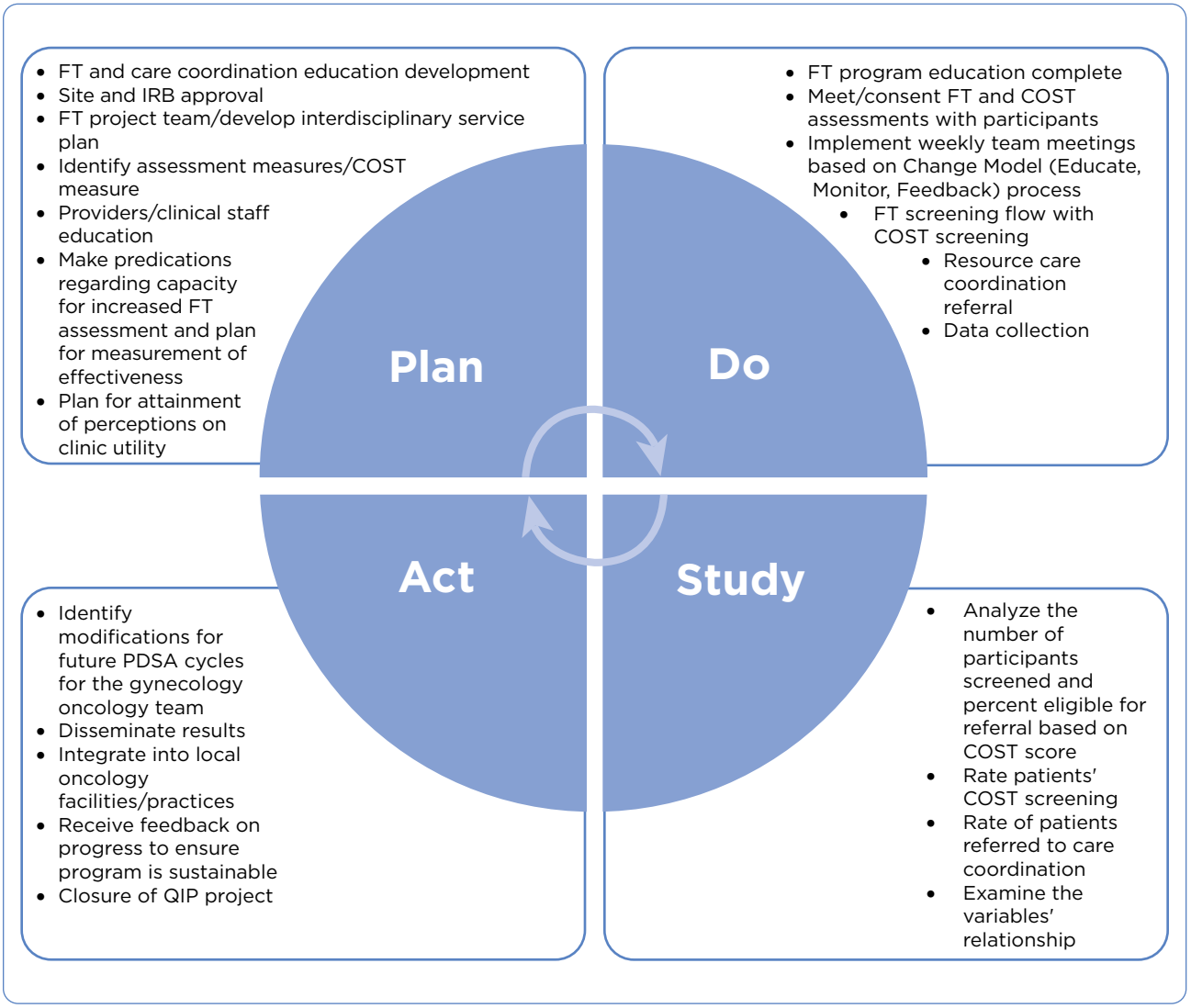

Figure 1. Model of Improvement PDSA questions and phases. (1) What are we trying to accomplish? (2) How will we know that a change is an improvement? (3) What change can we make that will result in improvement? FT = financial toxicity; IRB = institutional review board; COST = COmprehensive Score for financial Toxicity; QIP = quality improvement project. Adapted from Institute for Healthcare Improvement (n.d.).

PowerPoint education program, simplified educational materials, and a community customized resource list). The "Plan" phase finished with the multidisciplinary team's FT screening and care coordination education program.

Quality Improvement Project Tools

The FT screening choice for the QIP was version 2 of the COmprehensive Score for financial Toxicity (COST) and grading tool (FACIT, n.d.). The screening tool is commonly used in research and proved reliable and valid in measuring FT (de Souza et al., 2017). Although the research was limited to the recommended cutoff score for the COST tool, a recent study yielded acceptable sensitivity and specificity of 17.5 (Ng et al., 2021). However, after the QIP team's collaboration, the COST score of below 23 (with a 0–44 score range) was selected as the cutoff to simplify the calculations for resource care coordination referrals. As estimated in prior studies, the COST tool takes 5 minutes to fill out per instruction (FACIT, n.d.). The QIP team agreed upon the questionnaire with relevant descriptive statistics for each variable (diagnosis, stage, ethnic/race, age, and location of residence). The estimated time for the QIP clinic visits with each participant ranged from 8 to 20 minutes, depending on the number of participants' questions and consent, plus the time for each participant to answer the demographic and the COST tool's questions. The clinic staff, including oncology nurse navigators and APNs, were responsible for collecting the COST tool data and addressing patients' questions.

Ethical Approval

In addition to receiving facility approval, this project met the University of North Georgia and the University of Tennessee College of Medicine Institutional Review Board (IRB) criteria for an Expedited Review. As directed by the IRB, the APN project coordinator developed an informed consent staff education audio PowerPoint and written material for the multidisciplinary team for a viewing resource. The QIP team obtained all participants' written informed consent. All data remain confidential and secured in an encrypted password-protected Statistical Package for the Social Sciences (SPSS) software 28.0 until disposal in 3 years.

Quality Improvement Project Setting and Participants

The QIP occurred in a busy southeast Tennessee academic gynecology oncology urban practice. The gynecology oncology practice has a multidisciplinary clinical approach. The practice's providers see an average of 20 new patients weekly, with a third of new patients diagnosed with stage III or IV cancer. Therefore, the QIP team targeted a convenience sample from the gynecology oncology practice population.

Inclusion criteria were biologically female, stage III or IV gynecologic cancer, newly diagnosed (within the past 12 weeks per surgical pathology or clinical imaging date), 18 years or older, English speaking and reading, and planning or currently receiving treatment for cancer locally. Exclusion criteria were biologically male, gynecologic cancers less than stage III, all other diagnoses of cancer that were not gynecologic, minors or adults who cannot consent, non-English speaking and reading, patients who decline treatment at the facility, and those on hospice or planning for hospice care.

DO PHASE

The PDSA cycle one "Do" phase of the QIP occurred for 8 weeks from October 18, 2021, through December 10, 2021. First, participants consenting to the QIP completed a brief survey that captured relevant demographic information and the COST metric consisting of the 12 scaled questions that a QIP team member scored during a brief clinic visit. Next, the participants received referrals if the COST score was below 23 for resource care coordination (Figure 2). Finally, the participants who did not meet the FT score (23 and above) received instructions to follow up in 3 months with their oncology team if FT became a concern. Throughout the "Do" phase, the APN project coordinator led the weekly team meetings with group feedback and ensured a streamlined participant clinic flow and care coordination referrals.

STUDY PHASE (DATA ANALYSIS)

Characteristics

A total of 52 patients were invited to participate in the QIP. Of those invited, 42 patients consented and completed the surveys with a response rate

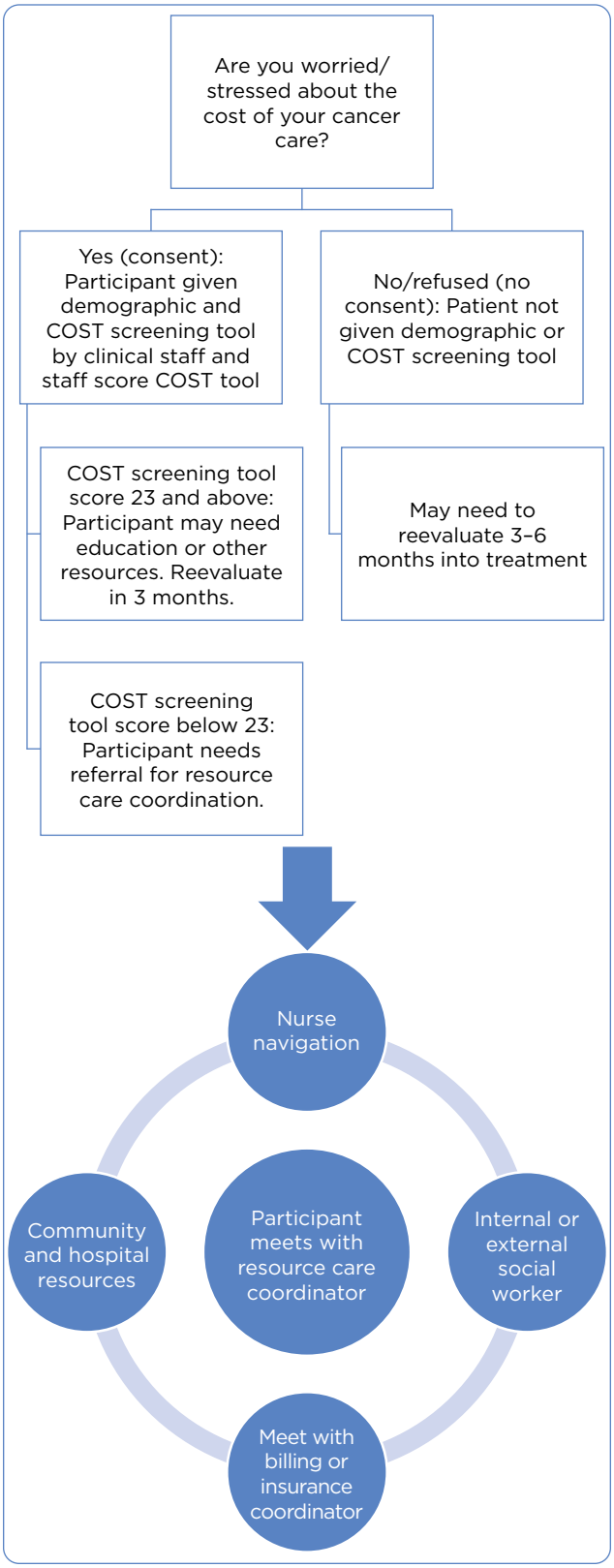

Figure 2. Gynecology oncology patient flow with financial toxicity screening and care coordination.

of 80.8%. Participants are all females, with ages ranging from 22 to 81 years old and an average age of 58 years old. In terms of race, most participants report as White/Caucasian (85.7%), with the remaining participants reporting as Black or African American (14.3%). The participants' characteristics were 69% diagnosed with stage III and 31% with stage IV gynecologic cancer.

Composite Statistics

Focusing on the combined 8 weeks of the QIP, Table 1 shows demographics for the following group categories: Total study (N = 42), FT (Yes) with a COST score below 23 (N = 26), and FT (No) with a COST score of 23 and above (N = 16).

Examination of the composite statistics reveals pronounced differences between the Total, FT (Yes), and FT (No) groups for the following variables: age, location, cancer type, FT COST scores, and FT referred. At a glance, the demographic statistics for race/ethnicity and cancer stage (III and IV) do not appear different between the Total, FT (Yes), and FT (No) groups. All participants reported as FT (Yes) received immediate referrals to support services at a rate of 100%. Therefore, the referral rate was removed from the detailed analysis because of no variability in this statistic, as it can be considered the equivalent of FT (Yes) and positively correlated with the FT COST score (p < .001).

Weekly Analysis Findings

Data were captured and analyzed weekly throughout the 8-week QIP, looking at the weekly category counts and rates. Additionally, data were assessed across the 8 weeks examining the total counts, average rates, and details of the weekly statistics (Table 2). On average, 80.75% of patients consented to participate in the QIP, and 19.24% refused to participate. Over the 8-week project, a total of 26 participants had FT COST scores below 23 or 61.90%, with 100% of the 26 participants receiving immediate resource care referrals.

However, because all invited patients did not participate, the total FT rates for this population could potentially be higher. Financial toxicity could exist for the remaining patients who declined participation in the QIP; this is a critical factor in the total picture of FT in late-stage

Table 1. Composite Demographics (8 Weeks)

	Total			FT (Yes)			FT (No)		
Variable	**%**	**Mean (SD)**	***N***	**%**	**Mean (SD)**	***N***	**%**	**Mean (SD)**	***N***
Age (22–81)	–	58.33 (14.99)	42	–	53.86 (15.12)	26	–	65.75 (12.41)	16
Race/ethnicity									
White	85.7	–	36	84.6	–	22	87.5	–	14
African American or Black	14.3	–	6	15.4	–	4	12.5	–	2
Location									
Urban	21.4	–	9	30.8	–	8	6.3	–	1
Suburban	31.0	–	13	23.1	–	6	43.8	–	7
Rural	47.6	–	20	46.2	–	12	50.0	–	8
Cancer type									
Uterine	26.2	–	11	19.2	–	5	37.5	–	6
Cervix	16.7	–	7	26.9	–	7	0.0	–	0
Ovarian/fallopian	38.1	–	16	34.6	–	9	43.8	–	7
Peritoneal	9.5	–	4	7.7	–	2	12.5	–	2
Vulva/vaginal	9.5	–	4	11.5	–	3	6.3	–	1
Unknown primary	0.0	–	0	0.0	–	0	0.0	–	0
Cancer stage									
Stage III	69.0	–	29	65.4	–	17	75.0	–	12
Stage IV	31.0	–	13	34.6	–	9	25.0	–	4
COST score (0–44)	–	18.93 (11.67)	42	–	11.69 (7.34)	26	–	30.69 (6.62)	16
FT referred (*N* = 42)	61.9 (0.49)	–	26	100.0 (0.0)	–	26	0.0	–	0

Note. 50-week year. FT = financial toxicity; COST = COmprehensive Score for financial Toxicity.

cancer patients. Essentially 59.05% of participants have FT in an average week. Cost scores below 23 or FT (Yes) was at an average of 25.00% in low weeks 100.00% in high weeks. If this average of 59.05% is applied to the 10 patients who declined FT screening, then approximately 5.91 patients with FT were missed across the 8-week project timeline and did not receive referrals (Table 3).

With further analysis of the average, 6.50 new patients enter the gynecology oncology practice weekly, with *N* = 14 on a busy week and *N* = 3 on a slow week (Table 4). On average, 5.25 patients consent to participate in the QIP weekly, with 1.25 patients refusing to participate. Of those 5.25 patients participating each week, 3.25 patients are FT (Yes); this translates to a known base of 162.50 patients being FT (Yes) on average in a 50-week year. For patients refusing to participate in the QIP weekly, there could be 0.74 individuals with FT COST scores below 23; this translates to an additional 37 people being FT (Yes) on average in a 50-week year. The extra 37 people raise the yearly rate for FT (Yes) from 162.50 patients to 199.50 patients, which means 18% of the gynecology oncology practice's nearly 200 patients are not receiving referrals to services. Further, if every patient who refused the project was actually FT (Yes), the possible rate of patients being FT (Yes) would rise from 3.99 patients weekly to 4.50 patients; this translates to a potential rate of 225.00 patients being FT (Yes) in a 50-week year (Figure 3). The concern at this facility is that a minimum of 162.50

Table 2. Quality Improvement Project Weekly Statistics

Weeks	Total	Consent	Refused	Missed	Capture, %	Loss, %	FT	Referred	Refer, %
1. 10/18/21 to 10/22/21	14	11	3	0	78.5	21.43	7	7	100
2. 10/25/21 to 10/29/21	8	7	1	0	87.5	12.5	4	4	100
3. 11/01/21 to 11/05/21	8	6	2	0	75	25	5	5	100
4. 11/08/21 to 11/12/21	5	4	1	0	80	20	1	1	100
5. 11/15/21 to 11/19/21	3	2	1	0	66.67	33.33	1	1	100
6. 11/22/21 to 11/26/21	4	3	1	0	75	25	1	1	100
7. 11/29/21 to 12/03/21	6	5	1	0	83.33	16.67	3	3	100
8. 12/06/21 to 12/10/21	4	4	0	0	100.00	0.00	4	4	100
Total/Avg	52	42	10	0	80.75	19.24	26	26	100

Note. FT = financial toxicity.

patients yearly with FT are not receiving referrals for resources before this QIP.

Means Testing

Comparisons of means and standard deviations were completed for the age and FT COST score ratio variables. *t*-test scores were examined for significant differences between means for the participants reporting FT (Yes) and FT (No). A *t*-test score outside the range of +/– 2.0 indicates the mean score falls more than 2 standard deviations away from what the expected mean score should be, which is a statistically significant difference. Significant differences exist between FT (Yes) and FT (No) for the variables age ($p < .05$) and FT COST score ($p < .001$); *p*-values indicate the probability that these mean scores could happen randomly within the sample (Table 5).

Pearson Correlation Coefficient

The pattern, strength, and significance of relationships between key variables under observation are determined using Pearson correlation coefficient independent, sample *t*-tests, and multivariate linear

Table 3. Weekly Statistics: Potential Financial Toxicity

Weeks	Total	Consent	Refused	FT, *N*	FT, %	PFT, *N*
1. 10/18/21 to 10/22/21	14	11	3	7	63.63	1.772
2. 10/25/21 to 10/29/21	8	7	1	4	57.14	0.591
3. 11/01/21 to 11/05/21	8	6	2	5	83.33	1.181
4. 11/08/21 to 11/12/21	5	4	1	1	25.00	0.591
5. 11/15/21 to 11/19/21	3	2	1	1	50.00	0.591
6. 11/22/21 to 11/26/21	4	3	1	1	33.33	0.591
7. 11/29/21 to 12/03/21	6	5	1	3	60.00	0.591
8. 12/06/21 to 12/10/21	4	4	0	4	100.00	0.00
Total	52	42	10	26	59.05	5.91

Note. 50-week year. FT = financial toxicity; PFT = potential FT.

Table 4. Weekly and Yearly Rates

	N	Description
Weekly patient rate	6.50	Total patients/# of weeks
Weekly consent rate	5.25	Total consent/# of weeks
Weekly refusal rate	1.25	Total refusals/# of weeks
Weekly FT rate	3.25	Total FT *N*/# of weeks
Weekly PFT rate	0.74–1.25	PFT (number) = Refused N × AVG FT%/100/# of weeks: *N* = 10 (5.91/8 and 10/8)
Weekly XFT rate	3.99–4.50	XFT is possible FT = FT + PFT
Yearly FT rate	162.50	FT × 50
Yearly PFT rate	37.00–62.50	PFT × 50
Yearly XFT rate	199.50–225.00	XFT × 50

Note. 50-week year. FT = financial toxicity; PFT = potential FT; XFT = known FT and potential FT.

regression where appropriate. Analysis using Pearson correlation coefficient was completed to find any relationships existing between the key variables under review for significant correlation findings, including the *r* value and level of significance (Table 6). Pearson correlation coefficient analysis reveals the following statistically significant patterns between variable pairs (Table 7). In terms of the significance of the Pearson correlation coefficients, FT COST score, Age, and Cervix (Yes) form a web of correlations, as do Race (White), Location (Urban), and Ovarian/Fallopian (Yes) by further examining these relationships.

Independent Sample *t*-Test

Noncausal relationships are addressed first by examining the strength of the above correlations with an independent sample *t*-test analysis completed for all significant relationships between the following independent variables and details the strength and significance of each relationship (Table 8): Race/Ethnicity, Location, and Cancer Type.

The R^2 score explains the amount of variation in one variable caused directly by changes in the other variable; this indicates the relative strength of the bivariate relationship. The bivariate correlations that form causal relationships are addressed next.

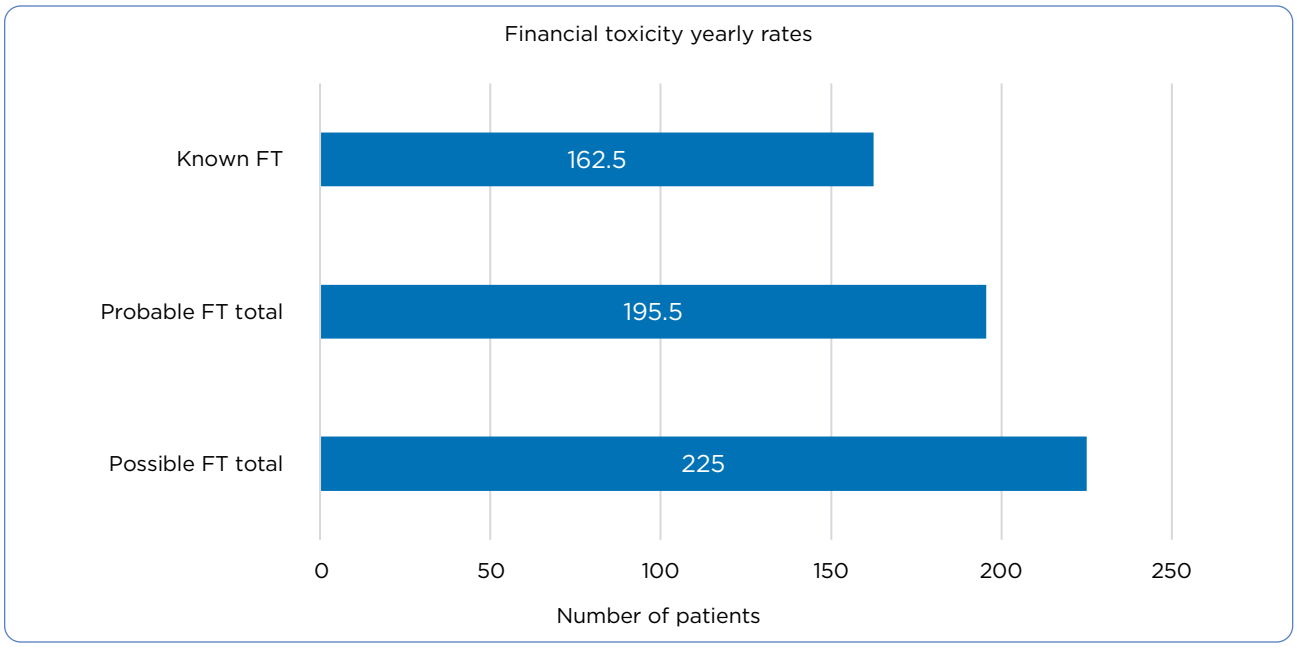

Figure 3. Financial toxicity yearly rates. Yearly potential financial toxicity rate (37.0–62.50) based on a 50-week year. FT = financial toxicity.

Table 5. t-Test Means Comparison

Variables	Diff	SE	*t*	*p*-value	df
Age	11.89	4.50	2.642	.012[a]	40
FT COST score	19.00	2.25	8.448	.000[b]	40

Note. FT = financial toxicity; COST = COmprehensive Score for financial Toxicity; SE = standard error; df = degrees of freedom.
[a]$p < .05$
[b]$p < .001$

Regression Statistics

The FT COST score is the key dependent variable for this QIP report, with all other variables treated as independent. After examining all possible relationship models in the data, linear regression analysis was completed to examine the relationships between the independent variables Age and Cervix (Yes) and the dependent variable FT COST score. No other variables under review revealed significant influence over changes in the FT score ($p < .05$). An F-test score of 5.844 means this model is significant at the $p < .01$ level; the model significance denotes the variables fit well together, and proper analysis is supported. The adjusted R^2 of .191 explains that the model is moderately strong. The FT-COST score regression analysis further illustrates the 19% of the observed change in the FT COST score. Regression findings are as follows: controlling for Cervix (Yes), positive changes in Age drive positive changes in the FT COST Score ($p < .05$). Plus, controlling for Cervix (Yes), the FT COST score increased by .251 points for every 1-year increase in Age (Table 9).

Many variables are unobserved in this QIP and may impact the FT COST Score. Their impact could potentially increase or diminish the significant relationships examined between Age, Cervix (Yes), and FT COST score in this model. However, separate modeling reveals that Age alone explains approximately 15% of the observed changes in FT COST scores, and controlling for more variables may refine the model. However, it seems unlikely by this analysis that Age would disappear as a driver of change in the FT COST Score.

ACT PHASE (DISCUSSION)

The data analysis "Study" phase led to the final "Act" phase of the PDSA cycle one. The key to this PDSA model is that the intervention is still the same within a process but changes for the following PDSA cycles based on the aforementioned data analysis (IHI, n.d.). Timely collection, analysis, and data feedback supported the process and were crucial to the PDSA model design to complete cycle one (IHI, n.d.). The final phase in cycle one of the PDSA model was to answer if the change resulted in an improvement. The QIP team was able to visualize the benefit of screening advanced gynecologic cancer participants for FT. Care coordination referral rates remained 100% throughout the 8-week project, including participants with FT receiving a resource care coordination plan.

Table 6. Pearson Correlation Coefficient

Variable	*r*	*p*-value	*N*
FT COST score × Age	.425	.005[b]	42
FT COST Score × Cervix (Yes)	−.380	.13	42
Age × Cervix (Yes)	−.416	.006[b]	42
Age × Peritoneal (Yes)	.321	.038[a]	42
Race (White) × Uterine (Yes)	−.376	.014[a]	42
Race (White) × Ovarian (Yes)	.320	.039[a]	42
Race (White) × Location (Rural)	.389	.011[a]	42
Race (White) × Location (Urban)	−.450	.003[b]	42
Ovarian/Fallopian (Yes) × Location (Urban)	−.410	.007[b]	42

Note. FT = financial toxicity; COST = COmprehensive Score for financial Toxicity.
[a]$p < .05$
[b]$p < .01$

Table 7. Pearson Correlation Coefficient Patterns

- FT COST score and Age have a positive correlation; as Age increases, FT COST score increases. This relationship is significant at the $p < .01$ level.
- FT COST score and Cervix (Yes) have a negative correlation; when the Cancer Type is Cervix (Yes), FT COST score decreases. This relationship is significant at the $p < .05$ level.
- Age and Cervix (Yes) have a negative correlation; when the Cancer Type is Cervix (Yes), Age decreases. This relationship is significant at the $p < .01$ level.
- Age and Peritoneal (Yes) have a positive correlation; as Age increases, Peritoneal (Yes) increases. This relationship is significant at the $p < .05$ level.
- Race (White) and Uterine (Yes) have a negative correlation; when participants report being White, Uterine (Yes) decreases. This relationship is significant at the $p < .05$ level.
- Race (White) and Ovarian/Fallopian (Yes) have a positive correlation; when participants report being White, Ovarian/Fallopian (Yes) increases. This relationship is significant at the $p < .05$ level.
- Race (White) and Location (Rural) have a positive correlation; when participants report being White, Location (Rural) increases. This relationship is significant at the $p < .05$ level.
- Race (White) and Location (Urban) have a negative correlation; when participants report being White, Location (Urban) decreases. This relationship is significant at the $p < .01$ level.
- Location (Urban) and Ovarian/Fallopian (Yes) have a negative correlation when participants report Location (Urban), Ovarian/Fallopian (Yes) decreases. This relationship is significant at the $p < .01$ level.

Note. FT = financial toxicity; COST = COmprehensive Score for financial Toxicity.

Table 8. Independent Sample *t*-Test

Variables	R^2	t	*p*-value	df
Race (White) × Uterine (Yes)	0.1414	−2.565	.014[a]	40
Race (White) × Ovarian (Yes)	0.1024	2.138	.039[a]	40
Race (White) × Location (Rural)	0.1513	2.673	.011[a]	40
Race (White) × Location (Urban)	0.2025	−3.188	.003[b]	40
Ovarian Fallopian (Yes) × Location (Urban)	0.1681	−2.840	.007[b]	40

Note. FT = financial toxicity; COST = COmprehensive Score for financial Toxicity; df = degrees of freedom.
[a]$p < .05$
[b]$p < .01$

Table 9. FT-COST Score Regression (*N* = 42)

FT COST score regression	Unstandardized B	SE	Beta	*t*	*p*-value
(Constant)	5.525	7.551		.732	.469
Age	.251	.120	.323	2.093	.043[a]
Cervix (Yes)	−7.590	4.776	−.245	−1.589	.120
Adjusted R^2 = .191; F = 5.844; df = 41					

Note. FT = financial toxicity; COST = COmprehensive Score for financial Toxicity; SE = standard error; df = degrees of freedom.
[a]$p < .05$

Limitations

The goal of this QIP precludes generalizability. Financial toxicity screening and resource care coordination success depend on how well the QIP integrates into existing workflows and the approach, plus collaborative communication from those developing and supporting a practice change. The QIP initiation into a complex social context of daily clinical work stayed a challenge throughout the project. For example, this QIP was subject to the uncertainty of the coronavirus disease (COVID-19) pandemic. A formal face-to-face FT education and care coordination program was not possible at the time, prompting the APN project coordinator to develop a downloadable education program.

The QIP faced the same workflow concerns that affect organizations' ability to address and engage patients, as well as cost concerns, which are common barriers (Fradgley et al., 2019; Henrikson et al., 2019). In addition, other challenges during the planning and doing phase for FT screening were similar to those reported in the literature: time constraints, staffing, and resources outside the scope of the QIP to alleviate FT (Fischer et al., 2020; Jagsi et al., 2018; Klein et al., 2019; Spencer et al., 2017). The QIP team could not assume that the stigma related to poverty may be why patients refused to participate in the QIP or make any assumptions, as communication is complex, especially in financial discussions.

IMPLICATIONS FOR PRACTICE

The FT education program supplied practical solutions, a starting point for the QIP team to screen successfully, and a referral roadmap for care coordination. The APN coordinator and QIP team successfully set up, expanded, and managed the blueprint to integrate the FT screening program into practice using the PDSA model. Strategic partnerships with collaboration among various disciplines were essential by taking a structured step-by-step approach to define the problem, identify key stakeholders, and develop a program to integrate into a busy practice (IHI, n.d.). There were key takeaways from this QIP: On average, 6.50 patients newly diagnosed with stage III or stage IV gynecological cancer entered the facility per week, with more than 50% reporting FT. Over 162 patients (in a 50-week year) have FT at this rate, and with some patients refusing to participate, there are potentially 225 patients in the facility not receiving resource care coordination. In addition, the QIP data show that FT screening might need to focus on age since this is what drives positive changes in the FT COST score ($p < .05$; 95% confidence). Future PDSA cycles may need to incorporate electronic health records (EHRs) for FT screening and resource care coordination. Integrating into EHRs may prove critical to track success in closing gaps in FT screening and care coordination (Bradley et al., 2021).

CONCLUSION

The multidisciplinary team was able to close gaps in patient care by implementing an improvement model centered on accelerating changes with the structured step-by-step screening and resource care coordination program. The PDSA roadmap successfully incorporated screening to identify the participants experiencing FT, and the QIP team was able to refer for financial resource care coordination promptly. Developing a multidisciplinary education program focusing on FT screening and resource care coordination with a PDSA model can serve as an example for addressing and implementing patient-centered care. Finally, the QIP raised awareness of FT screening and care coordination and may supply initiatives for other local, state, and national oncology practices.

Disclosure

The authors have no conflicts of interest to disclose.

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